





**TEST REPORTS
OF
MASONRY BLOCKS**



HOLLOW BLOCK
400 X 100 X 200 MM

- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH

| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF COMPRESSIVE STRENGTH OF MASONRY UNIT | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|---|---|---------------------------------------|--------------------|
| Report No: | 288653 | Request No: | EMTX-2021-1048108 |
| Project No: | BA-28 | Report Date: | 09/05/2021 10:46AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | FACTORY YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | MASONRY HOLLOW NORMAL WEIGHT CONCRETE BLOCK | | |
| Product Name: * | | | |
| Sampling Date/Time: * | 01/04/2021 11:19AM | Lot Number: * | 21410027 |
| Receiving Date/Time: | 04/05/2021 08:20AM | Lot Size: * | 32000 pieces |
| Sample Size: | 7.00 pieces | Sender No: | AJ3912 |
| Material/Mix Type: * | | Laying Date/Production Date: * | |
| Nominal Size / Working Block Size L * T * H (mm) : 400X100X200 | | | |

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|---|-------------------------------|------|------|------|------|
| PRODUCTION DATE | NG | | | | |
| SURFACE PREPARATION | NO SURFACE PREPARATION | | | | |
| CONDITIONING METHOD | AS PER DMS 1 : PART 1 ANNEX A | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| FAILURE LOAD (kN) | 629 | 572 | 695 | 575 | 747 |
| COMPRESSIVE STRENGTH (N/mm ²) | 16.1 | 14.5 | 17.6 | 14.6 | 19.0 |
| SPECIMEN NO | 6 | | | | |
| FAILURE LOAD (kN) | 661 | | | | |
| COMPRESSIVE STRENGTH (N/mm ²) | 16.7 | | | | |
| AVE. COMPRESSIVE STRENGTH | 16.4 | | | | |
| STANDARD DEVIATION | 1.7 | | | | |
| COEFFICIENT OF VARIATION (%) | 10.4 | | | | |

| | | | |
|----------------------------|--|-------------------------------|--------------------|
| Sampled By: | AMKUTTY | Tested By: | EJMILLANA |
| Sampled Brought By: | AMKUTTY | Testing Date: | 04/05/2021 08:20AM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS EN 772-1 : 2011 ; DMS 001 | Test Method Variation: | NIL |
| Remarks: | - THIS REPORT REPRESENTS THE SUBMITTED SAMPLE ONLY ; SAMPLING IS PERFORMED BY THE CUSTOMER | | |

Disclaimer : * Information is supplied by the customer and Laboratory is not responsible for this data.

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

Certificate of Compliance

Certificate No. : BBCE-2020-000638
Certificate Date: 26/02/2020
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 20410053
Sample Description : Masonry Hollow Normal Weight Concrete Block
Lot Size: 9936 **Color :**
Work size: 400 L1 x 0 L2 x 100 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|--|---------------|------|
| NP0017 | Regular | EMSU0002 COMPRESSIVE STRENGTH OF HOLLOW MASONRY BLOCKS | R1DX20-026606 | Pass |
| NP0017 | Regular | EMSU0005 DIMENSION OF HOLLOW MASONRY BLOCKS | R1DX20-026607 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: Ahtssam Kunigal

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2020-000638 and Verification Code 218531 , or alternatively scan the QR code.



هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2020-000638 وكود التأكيد 218531 ، أو بدلا من ذلك مسح QR Code



PRODUCT CONFORMITY



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae

TEST REPORT

**ACID SOLUBLE CHLORIDE AND SULPHATE
IN HARDENED CONCRETE**

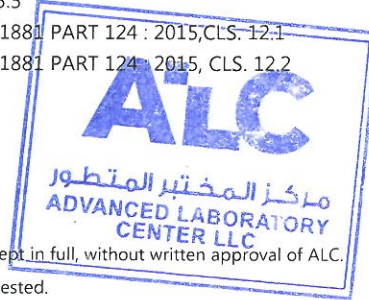
| | | | |
|--------------------------|---|----------------------|------------------|
| Report No. | : RCH22-10106 | Report Date | : 23-03-2022 |
| Sample No. | : SCH22-10106 | Project No. | : Not Applicable |
| Project Name | : Internal Quality Check | Sender's Ref. No. | : Not Applicable |
| Consultant | : Not Applicable | Plot No. | : Not Applicable |
| Project Client | : Mansoor Concrete Block Industry LLC (Macon) | Lot No. | : 22410202 |
| Contractor | : Not Applicable | Lot Size | : Not given |
| Location | : Dubai, UAE | Sample brought by | : ALC Rep. |
| Unit sampled from | : Yard | Sampled by | : Client |
| Source | : Macon | Place of sampling | : Plant |
| Class of concrete | : Not Given | Sampling Date | : 18-03-2022 |
| Size of sample | : 1 Nos | Sampling Time | : Not given |
| Nominal size ,mm (LxWxH) | : 400 x 100 x 200 | Sample Received Date | : 18-03-2022 |
| Production Date | : 16-03-2022 | Sample Received Time | : 16:00 Hrs |

Test Results :

| Parameters | Percent mass of dried material |
|--|--------------------------------|
| Acid soluble chloride as Cl ⁻ | 0.02 |
| Acid soluble sulphate as SO ₃ ²⁻ | 0.42 |

Sample Description : 400x100x200mm Hollow Block
Testing Date : 19-03-2022 to 22-03-2022
Tested by : DKP

| | |
|---------------------------|---|
| Sampling method | : Not given |
| Test Specimen Preparation | : BS 1881 PART 124 : 2015 CLS. 5.5 |
| Test Method | : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015,CLS. 12.1 : ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015, CLS. 12.2 |
| Test variation | : None |
| Remarks | : None |



for Advanced Laboratory Center

[Signature]

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested.

Issue No./Dt 01/14.04.08 Form No.: CH-19

Revision No./Dt 03/20.05.2021 Page No.: 1 of 1

MATERIALS | METALLURGY | GEOTECHNICAL | CHEMISTRY & LIFE SCIENCES | ENVIRONMENTAL | SPECIAL PRODUCTS

TEST REPORT

DETERMINATION OF BLOCK AND CONCRETE DENSITY OF MASONRY BLOCKS
ASTM C-140

Report Date : 25/03/2022

| | |
|--|--|
| Sample Number : SCN22-10105 | Report Number : RCN22-10105 |
| Project Number : IQC | Plot No. : Not Given |
| Project Name : Internal Quality Check | Sample Source : Macon |
| Project Location : Dubai,U.A.E | Sample Location : Yard |
| Contractor : Mansoor Concrete Block Industry-LLC (MACON) | Sampled By : Contrcator |
| Consultant : N/A | Sampling Date/Time : 18/03/2022 |
| Client : N/A | Sampling Method : ASTM C-140 |
| Client Ref./Req. No. : N/A | Sample Delivered By : ALC Rep. |
| Sample Size : 03 Nos | Production Date : 16-03-2022 |
| Work Size, mm : 400x100x200 | Sample Received Date/Time : 18/03/2022 / 16:00 Hrs |
| Lot No./Lot Size : 22410202 | |

Results :

| SPECIMEN ID | SCN22-10105/1 | SCN22-10105/2 | SCN22-10105/3 |
|---|---------------|---------------|---------------|
| Block density (ρb), kg/m ³ | 2170 | 2130 | 2150 |
| Average block density (ρb), kg/m ³ | 2150 | | |

Sample Description : **Hollow Block**

Testing Date : **22/03/2022 to 24/03/2022**

Tested by : **STS**

Test Method : ASTM C-140
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/01.04.2021 Form No.: MC-124
Revision No./Dt Page No.: 1 of 1





مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON LINEAR DRYING SHRINKAGE OF CONCRETE MASONRY UNITS

Report No. : R1DX21-115570
Request No. : Q1DX21-068754
Sender's Ref. No : Not Given
Project Name : Internal Quality checking
Client Name : Mansoor Concrete Block Industry LLC (MACON)
Consultant : No Specific Consultant
Contractor : No Specific Contractor
Address : Dubai, UAE
Sampled By : Client Rep
Sample Brought by : Client Rep



Date: 23/10/2021

Sample No.: S1DX21-068754

Project No.: IQC

Sampling Date: 07/10/2021

Production Date: 26/10/2021

Sample Received Date: 07/10/2021

Location : Jabel Ali
Lot Size : Not Given
Source : Mansoor Concrete Block Industry LLC (MACON)
Sample Dimension (mm) : 400x100x200mm
Sample Description : Masonry Hollow Normal Weight Concrete Block

Lot No: 21410221

Age of specimen at testing: Not Provided

Date Test Started: 09/10/2021

Date Test Completed: 23/10/2021

RESULTS

| SPECIMEN ID | DIMENSIONS | MEASUREMENTS | | | | EQUILIBRIUM CONDITION |
|-------------|-----------------------------|---------------------|---------------|--------|--------|-----------------------|
| | | SATURATED CONDITION | DRYING PERIOD | | | |
| | | | 5 DAYS | 7 DAYS | 9 DAYS | |
| A | Weight (g) | 2165 | 2087 | 2077 | 2072 | 2067 |
| | Length (mm) | 10.844 | 10.772 | 10.743 | 10.721 | 10.700 |
| | Linear drying shrinkage (%) | N/A | 0.024 | 0.034 | 0.041 | 0.048 |
| B | Weight (g) | 2091 | 2010 | 2001 | 1995 | 1990 |
| | Length (mm) | 11.513 | 11.443 | 11.414 | 11.396 | 11.373 |
| | Linear drying shrinkage (%) | N/A | 0.023 | 0.033 | 0.039 | 0.047 |
| C | Weight (g) | 2135 | 2051 | 2042 | 2035 | 2028 |
| | Length (mm) | 10.641 | 10.566 | 10.546 | 10.531 | 10.510 |
| | Linear drying shrinkage (%) | N/A | 0.025 | 0.032 | 0.037 | 0.044 |
| D | Weight (g) | 2089 | 2008 | 1998 | 1993 | 1987 |
| | Length (mm) | 11.465 | 11.393 | 11.371 | 11.353 | 11.326 |
| | Linear drying shrinkage (%) | N/A | 0.024 | 0.031 | 0.037 | 0.046 |

Sampling Report No : Not Provided
Sampling Method : Random
Specimen Preparation : ASTM C 426 :2006
Test Method : ASTM C 426 :2006
Test Method variation : None
Tested by : LSS
Remarks : None



Results relates only to the items tested

Reports shall not be reproduced (Except in full) without the written approval of the laboratory

Form : MD/PC-238

Issue : 01/28.03.2011

Rev : 0/-

For GEOSCIENCE TESTING LABORATORY

Dubai : P.O. Box : 61670, Tel.: +971-4-431 4690, Fax : +971-4-431 4570

Sharjah (Khorfakhan) : P.O. Box : 64800, Tel : +971-9-238 9824, Fax : +971-9-238 9826

Website : www.geoscience.ae E-mail : info@gtl.ae



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : R1DX20-026606 Date : 23/02/2020
Request No. : Q1DX20-018099 Sample No. : S1DX20-018099
Senders Ref. : NP0017 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 19/02/2020
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 19/02/2020
Location : Jabel Ali Sample Received Time : 14:00

Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 20410053
Sample Description : Masonry Hollow Normal Weight Concrete Block Lot Size : 9936
Work Size of Blocks : L 400 W 100 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 6 | N.G | 08/02/2020 | 12.7 |
| 2 | 18 | N.G | 08/02/2020 | 15.7 |
| 3 | 30 | N.G | 08/02/2020 | 15.3 |
| 4 | 42 | N.G | 08/02/2020 | 14.9 |
| 5 | 48 | N.G | 08/02/2020 | 15.7 |
| 6 | 60 | N.G | 08/02/2020 | 16.0 |
| 7 | 72 | N.G | 08/02/2020 | 14.1 |
| 8 | 78 | N.G | 08/02/2020 | 14.0 |
| 9 | 84 | N.G | 08/02/2020 | 15.5 |
| 10 | 92 | N.G | 08/02/2020 | 16.3 |

Compressive Strength (N/mm²)

15.0

Standard Deviation 1.1

Certificate No. : Not Given
Testing Date : 23/02/2020
Sampling Method : WI -IC - 1002
Sampling Report No : 2020-000638
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : KHN/LSS
Remarks : None



Rev. : 01/17.02.2010

Ajesh K.A.
Unit Head - Materials

For GEOSCIENCE TESTING LABORATORY

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17

Issue : 02 / 13.09.2008

Page 1 of 1



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON DIMENSION OF CONCRETE MASONRY BLOCKS

Report No. : R1DX20-026607 Date : 23/02/2020
Request No. : Q1DX20-018099 Sample No. : S1DX20-018099
Senders Ref. : NP0017 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 19/02/2020
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 19/02/2020
Location : Jabel Ali Sample Received Time : 14:00

Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 20410053
Sample Description : Masonry Hollow Normal Weight Concrete Block Lot Size : 9936
Work Size of Blocks : L 400 W 100 H 200 Size of Sample : 10

| Specimen No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Production Date | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 |
| Production No. | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G |
| Bundle No. | 6 | 18 | 30 | 42 | 48 | 60 | 72 | 78 | 84 | 92 |
| Length (mm) | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| Height (mm) | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| Average Thickness | 99 | 98 | 98 | 98 | 99 | 99 | 99 | 99 | 98 | 99 |
| Average Shell (mm) | 32 | 31 | 32 | 31 | 32 | 32 | 32 | 31 | 32 | 32 |

Testing Date : 23/02/2020
Sampling Method : WI -IC - 1002
Sampling Report No : 2020-000638
Test Method : BS 6073: Part 1:1981 APP A AMD 4462 - 1984, 3944 - 1982, 14523 - 2003
Test Method Variation : A.1.2 A.1.3 & Average of 6 Thickness Position were Reported
Tested By : KHN/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-18

Issue : 02 / 13.09.2008

Page 1 of 1



Rev. : 01/17-02-2010

Ajesh K.A.
Unit Head - Materials

For GEOSCIENCE TESTING LABORATORY



HOLLOW BLOCK
400 X 150 X 200 MM

- DM CERTIFICATE OF COMPLIANCE**
- TEST REPORT - COMPRESSIVE STRENGTH**
- REPORT ON WATER ABSORPTION**

Certificate of Compliance

Certificate No. : BBCE-2020-000641
Certificate Date: 26/02/2020
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 20410056
Sample Description : Masonry Hollow Normal Weight Concrete Block
Lot Size: 10080 **Color :**
Work size: 400 L1 x 0 L2 x 150 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|--|---------------|------|
| NP0020 | Regular | EMSU0002 COMPRESSIVE STRENGTH OF HOLLOW MASONRY BLOCKS | R1DX20-026614 | Pass |
| NP0020 | Regular | EMSU0005 DIMENSION OF HOLLOW MASONRY BLOCKS | R1DX20-026615 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: Ahtssam Kunigal

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2020-000641 and Verification Code 678907 , or alternatively scan the QR code.



هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2020-000641 وكود التأكيد 678907 ، أو بدلا من ذلك مسح QR Code



PRODUCT CONFORMITY



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : R1DX20-026614 Date : 23/02/2020
Request No. : Q1DX20-018104 Sample No. : S1DX20-018104
Senders Ref. : NP0020 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 19/02/2020
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 19/02/2020
Location : Jabel Ali Sample Received Time : 14:00
Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 20410056
Sample Description : Masonry Hollow Normal Weight Concrete Block Lot Size : 10080
Work Size of Blocks : L 400 W 150 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 6 | N.G | 11/02/2020 | 10.9 |
| 2 | 18 | N.G | 11/02/2020 | 11.2 |
| 3 | 30 | N.G | 11/02/2020 | 11.1 |
| 4 | 48 | N.G | 11/02/2020 | 11.5 |
| 5 | 66 | N.G | 11/02/2020 | 11.6 |
| 6 | 84 | N.G | 11/02/2020 | 11.8 |
| 7 | 108 | N.G | 11/02/2020 | 10.2 |
| 8 | 120 | N.G | 11/02/2020 | 11.9 |
| 9 | 132 | N.G | 11/02/2020 | 11.2 |
| 10 | 140 | N.G | 11/02/2020 | 10.4 |

Compressive Strength (N/mm²) 11.2 Standard Deviation 0.6

Certificate No. : Not Given
Testing Date : 23/02/2020
Sampling Method : WI -IC - 1002
Sampling Report No : 2020-000641
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : ANM/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17

Issue : 02 / 13.09.2008

Page 1 of 1



Rev. : 04/17.02.2010

Ajesh K.A.
Unit Head - Materials

For GEOSCIENCE TESTING LABORATORY



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON DIMENSION OF CONCRETE MASONRY BLOCKS

Report No. : R1DX20-026615 Date : 23/02/2020
Request No. : Q1DX20-018104 Sample No. : S1DX20-018104
Senders Ref. : NP0020 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 19/02/2020
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 19/02/2020
Location : Jabel Ali Sample Received Time : 14:00

Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 20410056
Sample Description : Masonry Hollow Normal Weight Concrete Block Lot Size : 10080
Work Size of Blocks : L 400 W 150 H 200 Size of Sample : 10

| Specimen No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Production Date | 11/02/2020 | 11/02/2020 | 11/02/2020 | 11/02/2020 | 11/02/2020 | 11/02/2020 | 11/02/2020 | 11/02/2020 | 11/02/2020 | 11/02/2020 |
| Production No. | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G |
| Bundle No. | 6 | 18 | 30 | 48 | 66 | 84 | 108 | 120 | 132 | 140 |
| Length (mm) | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| Height (mm) | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| Average Thickness | 149 | 150 | 150 | 149 | 150 | 150 | 150 | 150 | 150 | 150 |
| Average Shell (mm) | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 32 | 33 | 33 |

Testing Date : 23/02/2020
Sampling Method : WI -IC - 1002
Sampling Report No : 2020-000641
Test Method : BS 6073: Part 1:1981 APP A AMD 4462 - 1984, 3944 - 1982, 14523 - 2003
Test Method Variation : A.1.2 A.1.3 & Average of 6 Thickness Position were Reported.
Tested By : ANM/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full)_ without the written approval of the laboratory.

Form : MD/PC-18

Issue : 02 / 13.09.2008

Page 1 of 1



Ajesh K.A.
Unit Head - Materials

For GEOSCIENCE TESTING LABORATORY



REPORT ON WATER ABSORPTION OF CONCRETE BLOCKS

| | | | |
|------------------|---------------------------------|-------------------|--------------------|
| Client | MANSOOR CONCRETE BLOCK INDUSTRY | Report No. | ARM09013983 |
| Contractor | MANSOOR CONCRETE BLOCK INDUSTRY | Date Reported | 13/07/09 |
| Consultant | NO SPECIFIC CONSULTANT | Sample No. | ASM09005739 |
| Project No. | N.P. | Request No. | AQM09005739 |
| Project Name | Internal Quality Control | Client Ref. | N.P. |
| Sample Desc. | HOLLOW MASONRY BLOCK | Date Sampled | 06/07/09 |
| Source | MACON | Date Received | 07/07/09 |
| Sample Location | MACON STOCK YARD | Date Tested | 11/07/09 |
| Lot No. | N.P. | Sampling Cert. | N.P. |
| Lot Size | N.P. | Sample Size | 3 Nos. |
| Casting Date | N.P. | Nominal Size (mm) | 400 x 150 x 200 mm |
| Sampling Method | Random | Sampled By | Contractor's Rep. |
| Test Method | ASTM C 140-06 | Sample Brt. In By | Contractor's Rep. |
| Method Variation | Nil | Tested By | Shaji |
| Remarks | | | |

Notes: The test result represent the submitted sample only

| Specimen No. | Water Absorption (%) |
|--------------|----------------------|
| 1 | 5.8 |
| 2 | 5.4 |
| 3 | 5.3 |



0 0 0 0 6 3 9 2 5 5

Eng. Harees Sulafman
Laboratory Supervisor



العربى المركز
Arab Center
For Engineering Studies





HOLLOW BLOCK
400 X 200 X 200 MM

- DM CERTIFICATE OF COMPLIANCE**
- TEST REPORT - COMPRESSIVE STRENGTH**
- REPORT ON WATER ABSORPTION**

| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF COMPRESSIVE STRENGTH OF MASONRY UNIT | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|---|---|---------------------------------------|--------------------|
| Report No: | 386305 | Request No: | EMTX-2021-1094352 |
| Project No: | BA-28 | Report Date: | 30/12/2021 01:31PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | FACTORY YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | MASONRY HOLLOW NORMAL WEIGHT CONCRETE BLOCK | | |
| Product Name: * | NA | | |
| Sampling Date/Time: * | 26/12/2021 11:19AM | Lot/Batch/Coil/Heat No.* | 21410424 |
| Receiving Date/Time: | 29/12/2021 11:20AM | Lot Size: * | 15768 pieces |
| Sample Size: | 15.00 pieces | Sender No: | NP3022 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X200X200 | | | |



TEST RESULTS

| PARAMETER | RESULTS | | | | |
|---|--|------|-------------------------------|--------------------|------|
| PRODUCTION DATE * | NG | | | | |
| TESTING SIZE (mm) | 400 x 200 x 200 | | | | |
| SURFACE PREPARATION | NO SURFACE PREPARATION | | | | |
| PRODUCT TYPE * | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| FAILURE LOAD (kN) | 855 | 936 | 859 | 1011 | 827 |
| COMPRESSIVE STRENGTH (N/mm ²) | 10.7 | 11.7 | 10.7 | 12.6 | 10.4 |
| SPECIMEN NO | 6 | | | | |
| FAILURE LOAD (kN) | 971 | | | | |
| COMPRESSIVE STRENGTH (N/mm ²) | 12.1 | | | | |
| AVE. COMPRESSIVE STRENGTH | 11.4 | | | | |
| STANDARD DEVIATION | 0.9 | | | | |
| COEFFICIENT OF VARIATION (%) | 7.9 | | | | |
| SPECIFICATION LIMIT * | NOT GIVEN | | | | |
| Sampled By: | HUSSAIN (DCL) | | Tested By: | JVBRIONES | |
| Sampled Brought By: | HUSSAIN (DCL) | | Testing Date: | 29/12/2021 11:20AM | |
| Sampling Method: | DCL-IC-99 | | Sampling Report No: | NA | |
| Test Method: | BS EN 772-1 : 2011 ; DMS 001 | | Test Method Variation: | NIL | |
| Remarks: | - THIS REPORT REPRESENTS THE SUBMITTED SAMPLE ONLY ; SAMPLING IS PERFORMED BY THE CUSTOMER | | | | |

PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DIMENSION OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

**CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT**

| | | | |
|---|---|---------------------------------------|--------------------|
| Report No: | 386304 | Request No: | EMTX-2021-1094352 |
| Project No: | BA-28 | Report Date: | 30/12/2021 01:31PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | FACTORY YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | MASONRY HOLLOW NORMAL WEIGHT CONCRETE BLOCK | | |
| Product Name: * | NA | | |
| Sampling Date/Time: * | 26/12/2021 11:19AM | Lot/Batch/Coil/Heat No.* | 21410424 |
| Receiving Date/Time: | 29/12/2021 11:20AM | Lot Size: * | 15768 pieces |
| Sample Size: | 15.00 pieces | Sender No: | NP3022 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X200X200 | | | |



TEST RESULTS

| PARAMETER | RESULTS | | | | |
|-----------------------|-----------------|-------|-------|-------|-------|
| NOMINAL SIZE, mm * | 400 x 200 x 200 | | | | |
| PRODUCTION DATE * | NG | | | | |
| PRODUCT TYPE * | BLOCK | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| LENGTH (mm) | 401.0 | 401.0 | 400.0 | 400.0 | 399.0 |
| WIDTH (mm) | 200.0 | 200.0 | 200.5 | 200.0 | 199.0 |
| HEIGHT (mm) | 198.0 | 199.0 | 199.0 | 199.0 | 200.0 |
| SHELL THICKNESS (mm) | 35.5 | 35.0 | 35.5 | 36.0 | 32.5 |
| WEB THICKNESS (mm) | 35.0 | 35.0 | 35.0 | 36.0 | 33.5 |
| DEPTH OF HOLES (mm) | 183.5 | 180.0 | 182.0 | 185.0 | 183.0 |
| SPECIMEN NO | 6 | | | | |
| LENGTH (mm) | 400.5 | | | | |
| WIDTH (mm) | 200.5 | | | | |
| HEIGHT (mm) | 199.5 | | | | |
| SHELL THICKNESS (mm) | 35.0 | | | | |
| WEB THICKNESS (mm) | 36.5 | | | | |
| DEPTH OF HOLES (mm) | 183.0 | | | | |
| SPECIFICATION LIMIT * | NOT GIVEN | | | | |

PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF NET DRY DENSITY OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

**CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT**

| | | | |
|---|---|---------------------------------------|--------------------|
| Report No: | 387923 | Request No: | EMTX-2021-1094352 |
| Project No: | BA-28 | Report Date: | 05/01/2022 11:05AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | FACTORY YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | MASONRY HOLLOW NORMAL WEIGHT CONCRETE BLOCK | | |
| Product Name: * | NA | | |
| Sampling Date/Time: * | 26/12/2021 11:19AM | Lot/Batch/Coil/Heat No.* | 21410424 |
| Receiving Date/Time: | 29/12/2021 11:20AM | Lot Size: * | 15768 pieces |
| Sample Size: | 15.00 pieces | Sender No: | NP3022 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X200X200 | | | |

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|----------------------------|---|------|-------------------------------|--------------------|------|
| NOMINAL SIZE mm * | 400*200*200 | | | | |
| TESTING SIZE mm | 400*200*200 | | | | |
| SPECIMEN NO | 7 | 8 | 9 | 10 | 11 |
| NET DRY DENSITY (kg/m3) | 2280 | 2190 | 2270 | 2260 | 2260 |
| SPECIMEN NO | 12 | | | | |
| NET DRY DENSITY (kg/m3) | 2180 | | | | |
| SPECIFICATION LIMIT * | NOT GIVEN | | | | |
| Sampled By: | HUSSAIN (DCL) | | Tested By: | JVBRIONES | |
| Sampled Brought By: | HUSSAIN (DCL) | | Testing Date: | 29/12/2021 11:20AM | |
| Sampling Method: | DCL-IC-99 | | Sampling Report No: | NA | |
| Test Method: | BS EN 772-13 : 2000 cl. 7.2 | | Test Method Variation: | NIL | |
| Remarks: | - CUSTOMER PERFORMED SAMPLING AND PROVIDED THE SAMPLE; THE RESULTS APPLY ONLY TO THE SAMPLE AS RECEIVED AND TESTED. | | | | |

Disclaimer : * Information is supplied by the customer and Laboratory is not responsible for this data.

*** END OF REPORT ***

This report is computer approved and authorized by Head of Unit and does not require any signature.





LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT SULPHATE CONTENT OF HARDENED CONCRETE | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

**CONSTRUCTION MATERIAL LABORATORY SECTION
CHEMICAL ANALYSIS IN CONSTRUCTION MATERIAL UNIT**

| | | | |
|---|---|---------------------------------------|--------------------|
| Report No: | 388950 | Request No: | EMTX-2021-1094352 |
| Project No: | BA-28 | Report Date: | 07/01/2022 11:23AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | FACTORY YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | MASONRY HOLLOW NORMAL WEIGHT CONCRETE BLOCK | | |
| Product Name: * | NA | | |
| Sampling Date/Time: * | 26/12/2021 11:19AM | Lot/Batch/Coil/Heat No. * | 21410424 |
| Receiving Date/Time: | 04/01/2022 08:15AM | Lot Size: * | 15768 pieces |
| Sample Size: | 15.00 pieces | Sender No: | NP3022 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X200X200 | | | |

TEST RESULTS

| PARAMETER | RESULTS | | |
|--|---|-------------------------------|--------------------|
| AVERAGE SULPHATE AS SO ₃ (%) BY MASS OF HARDENED CONCRETE (CONC. BLOCK) | 0.3 | | |
| Sampled By: | HUSSAIN (DCL) | Tested By: | NKPULIYAN |
| Sampled Brought By: | HUSSAIN (DCL) | Testing Date: | 04/01/2022 08:15AM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | NA |
| Test Method: | BS 1881-124 : 2015 cl. 12.2 ADD-06(2002) | Test Method Variation: | NIL |
| Remarks: | CUSTOMER PERFORMED SAMPLING AND PROVIDED THE SAMPLE; THE RESULTS APPLY ONLY TO THE SAMPLE AS RECEIVED AND TESTED. | | |

Disclaimer : * Information is supplied by the customer and Laboratory is not responsible for this data.

***** END OF REPORT *****



This report is computer approved and authorized by Head of Unit and does not require any signature.



PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT CHLORIDE CONTENT OF CONCRETE BLOCKS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
CHEMICAL ANALYSIS IN CONSTRUCTION MATERIAL UNIT

| | | | |
|---|---|---------------------------------------|--------------------|
| Report No: | 388840 | Request No: | EMTX-2021-1094352 |
| Project No: | BA-28 | Report Date: | 07/01/2022 10:07AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | FACTORY YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | MASONRY HOLLOW NORMAL WEIGHT CONCRETE BLOCK | | |
| Product Name: * | NA | | |
| Sampling Date/Time: * | 26/12/2021 11:19AM | Lot/Batch/Coil/Heat No.* | 21410424 |
| Receiving Date/Time: | 04/01/2022 08:15AM | Lot Size: * | 15768 pieces |
| Sample Size: | 15.00 pieces | Sender No: | NP3022 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X200X200 | | | |

TEST RESULTS

| PARAMETER | RESULTS | | |
|---|---|-------------------------------|--------------------|
| AVERAGE CHLORIDE % BY MASS OF HARDENED CONCRETE (Auto Titrator) | 0.02 | | |
| Sampled By: | HUSSAIN (DCL) | Tested By: | NKPULIYAN |
| Sampled Brought By: | HUSSAIN (DCL) | Testing Date: | 04/01/2022 08:15AM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | NA |
| Test Method: | BS 1881-124 : 2015 | Test Method Variation: | NIL |
| Remarks: | CUSTOMER PERFORMED SAMPLING AND PROVIDED THE SAMPLE; THE RESULTS APPLY ONLY TO THE SAMPLE AS RECEIVED AND TESTED. | | |

Disclaimer : * Information is supplied by the customer and Laboratory is not responsible for this data.

***** END OF REPORT *****

This report is computer approved and authorized by Head of Unit and does not require any signature.



LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

Ma Con

**HOLLOW BLOCK
400 X 250 X 200 MM**

**- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH**



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

| | | | |
|--------------------|---|----------------------|--------------------------|
| REPORT NO. | : R1DX21-131590 - 131591 | DATE | : 09/12/2021 |
| REQUEST NO. | : Q1DX21-078384 | SAMPLE NO. | : S1DX21-078384 |
| SENDER'S REF. | : NOT GIVEN | PROJECT NO. | : IQC |
| PROJECT NAME | : INTERNAL QUALITY CHECKING | | |
| CLIENT NAME | : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| CONSULTANT | : NO SPECIFIC CONSULTANT | | |
| CONTRACTOR | : NO SPECIFIC CONTRACTOR | | |
| ADDRESS | : DUBAI, UAE | | |
| SAMPLED BY | : NAHAS REPRESENTATIVE | | |
| SAMPLE BROUGHT BY | : GTL'S REPRESENTATIVE | | |
| LOCATION | : MACON | SAMPLE SIZE | : NOT GIVEN |
| LAYER | : SINGLE | LOT SIZE | : NOT GIVEN |
| SOURCE | : MACON | LOT NO. | : NOT GIVEN |
| SAMPLE DESCRIPTION | : 10" HOLLOW NORMAL WEIGHT CONCRETE BLOCK | BUNDLE NO. | : NOT APPLICABLE |
| COLOR/CLASS | : NOT GIVEN | TESTING DATE | : 05/12/2021 |
| WORK SIZE (mm) | : 400 x 250 x 200 | SAMPLING DATE / TIME | : 30/11/2021 / NOT GIVEN |
| UNIT SAMPLE FROM | : NOT GIVEN | RECEIVING DATE | : 05/12/2021 |

RESULT

| PARAMETER | UNIT | CLIENT'S SPECIFICATION | RESULT |
|--|----------------------------|------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | < 0.05 | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | | < 0.5 | 0.47 |

| | |
|-----------------------|--|
| TESTED ON | : 05/12/2021 - 08/12/2021 |
| SAMPLING REPORT NO | : NOT GIVEN |
| SAMPLING METHOD | : RANDOM |
| SAMPLE PREPARATION | : BS 1881 PART 124 : 2015 CLS. 5.5.2 |
| TEST METHOD | : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015 CLS. 12.1 : ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015 CLS. 12.2 |
| TEST METHOD VARIATION | : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT. |
| TESTED BY | : HNK |
| REMARKS | : THE TESTED SAMPLE MEETS THE SPECIFICATION LIMITS SUBMITTED BY THE CLIENT WITH RESPECT TO THE ABOVE PARAMETERS. |

*Results relates only to the items tested.
*Reports shall not be reproduced (except in full) without written approval of the Laboratory.
Form No.: CH-45 Issue: 01/ 01.08.2001 Rev.: 04 / 13.09.2008
Page 1 of 1



Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

For GEOSCIENCE TESTING LABORATORY

Certificate of Compliance

Certificate No. : BBCE-2019-002621
Certificate Date: 28/04/2019
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 19410135
Sample Description : Masonry Hollow Normal Weight Concrete Block
Lot Size: 10080 **Color :**
Work size: 400 L1 x 0 L2 x 250 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|--|---------------|------|
| NO6565 | Regular | EMSU0002 COMPRESSIVE STRENGTH OF HOLLOW MASONRY BLOCKS | R1DX19-066954 | Pass |
| NO6565 | Regular | EMSU0005 DIMENSION OF HOLLOW MASONRY BLOCKS | R1DX19-066955 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: Ahtssam Kunigal

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2019-002621 and Verification Code 527058, or alternatively scan the QR code.

هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2019-002621 وكود التأكيد 527058 ، أو بدلا من ذلك مسح QR Code



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae

TEST REPORT

**ACID SOLUBLE CHLORIDE AND SULPHATE
IN HARDENED CONCRETE**

| | | | |
|--------------------------|---|----------------------|------------------|
| Report No. | : RCH22-10112 | Report Date | : 23-03-2022 |
| Sample No. | : SCH22-10112 | Project No. | : Not Applicable |
| Project Name | : Internal Quality Check | Sender's Ref. No. | : Not Applicable |
| Consultant | : Not Applicable | Plot No. | : Not Applicable |
| Project Client | : Mansoor Concrete Block Industry LLC (Macon) | Lot No. | : Not given |
| Contractor | : Not Applicable | Lot Size | : Not given |
| Location | : Dubai, UAE | Sample brought by | : ALC Rep. |
| Unit sampled from | : Yard | Sampled by | : Client |
| Source | : Macon | Place of sampling | : Plant |
| Class of concrete | : Not Given | Sampling Date | : 18-03-2022 |
| Size of sample | : 1 Nos | Sampling Time | : Not given |
| Nominal size ,mm (LxWxH) | : 400 x 250 x 200 | Sample Received Date | : 18-03-2022 |
| Production Date | : Not Given | Sample Received Time | : 16:00 Hrs |

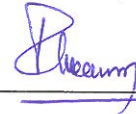
Test Results :

| Parameters | Percent mass of dried material |
|--|--------------------------------|
| Acid soluble chloride as Cl ⁻ | 0.02 |
| Acid soluble sulphate as SO ₃ ²⁻ | 0.43 |

Sample Description : 10" Hollow Light Weight Block
Testing Date : 19-03-2022 to 22-03-2022
Tested by : DKP

| | |
|---------------------------|---|
| Sampling method | : Not given |
| Test Specimen Preparation | : BS 1881 PART 124 : 2015 CLS. 5.5 |
| Test Method | : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015,CLS. 12.1 : ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015, CLS. 12.2 |
| Test variation | : None |
| Remarks | : None |

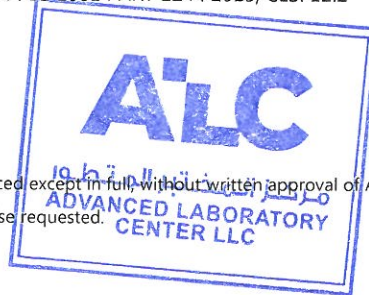
for Advanced Laboratory Center



This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested.

Issue No./Dt 01/14.04.08 Form No.: CH-19

Revision No./Dt 03/20.05.2021 Page No.: 1 of 1



TEST REPORT

**DETERMINATION OF BLOCK AND CONCRETE DENSITY OF MASONRY BLOCKS
ASTM C-140**

Report Date : 25/03/2022

| | |
|--|--|
| Sample Number : SCN22-10111 | Report Number : RCN22-10111 |
| Project Number : IQC | Plot No. : Not Given |
| Project Name : Internal Quality Check | Sample Source : Macon |
| Project Location : Dubai,U.A.E | Sample Location : Yard |
| Contractor : Mansoor Concrete Block Industry-LLC (MACON) | Sampled By : Contrcator |
| Consultant : N/A | Sampling Date/Time : 18/03/2022 |
| Client : N/A | Sampling Method : ASTM C-140 |
| Client Ref./Req. No. : N/A | Sample Delivered By : ALC Rep. |
| Sample Size : 03 Nos | Production Date : Not Given |
| Work Size, mm : 400x250x200 | Sample Received Date/Time : 18/03/2022 / 16:00 Hrs |
| Lot No./Lot Size : Not Given | |

Results :

| SPECIMEN ID | SCN22-10111/1 | SCN22-10111/2 | SCN22-10111/3 |
|---|---------------|---------------|---------------|
| Block density (ρ_b), kg/m ³ | 2130 | 2090 | 2100 |
| Average block density (ρ_b), kg/m ³ | 2110 | | |

Sample Description : 10" Hollow Light Weight Block
Testing Date : 22/03/2022 to 24/03/2022
Tested by : STS

Test Method : ASTM C-140
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC

The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/01.04.2021 Form No.: MC-124
Revision No./Dt Page No.: 1 of 1





مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : 066954 Date : 20/04/2019
Request No. : 044797 Sample No. : 044797
Senders Ref. : NO6565 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 14/04/2019
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 14/04/2019
Location : Jabel Ali Sample Received Time : 14:00
Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 19410135
Sample Description : Masonry Hollow Normal Weight Concrete Block Lot Size : 10080
Work Size of Blocks : L 400 W 250 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 6 | N.G | 31/03/2019 | 12.7 |
| 2 | 30 | N.G | 31/03/2019 | 15.0 |
| 3 | 54 | N.G | 31/03/2019 | 13.3 |
| 4 | 72 | N.G | 31/03/2019 | 14.4 |
| 5 | 102 | N.G | 31/03/2019 | 13.1 |
| 6 | 138 | N.G | 31/03/2019 | 14.7 |
| 7 | 162 | N.G | 31/03/2019 | 14.5 |
| 8 | 186 | N.G | 31/03/2019 | 13.7 |
| 9 | 204 | N.G | 31/03/2019 | 15.3 |
| 10 | 224 | N.G | 31/03/2019 | 14.5 |

Compressive Strength (N/mm²) 14.1 Standard Deviation 0.9

Certificate No. : Not Given
Testing Date : 20/04/2019
Sampling Method : WI - IC - 1002
Sampling Report No : 2019-002621
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17

Issue : 02 / 13.09.2008

Page 1 of 1



Rev. : 01/17.02.2010

Sunhy Paily
Technical Manager
(Civil)

For GEOSCIENCE TESTING LABORATORY



Dubai : P.O. Box : 61670, Tel : +971-4-431 4690, Fax : +971-4-431 4570
Website : www.geoscience.ae E-mail : info@gtl.ae



HOLLOW BLOCK
400 X 300 X 200 MM

- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH

Certificate of Compliance

Certificate No. : BBCE-2019-004066
Certificate Date: 16/06/2019
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 19410190
Sample Description : Masonry Hollow Normal Weight Concrete Block
Lot Size: 10080 **Color :**
Work size: 400 L1 x 0 L2 x 300 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|--|---------------|------|
| AJ1396 | Regular | EMSU0002 COMPRESSIVE STRENGTH OF HOLLOW MASONRY BLOCKS | R1DX19-102506 | Pass |
| AJ1396 | Regular | EMSU0005 DIMENSION OF HOLLOW MASONRY BLOCKS | R1DX19-102507 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: AbuBaker Kutty

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2019-004066 and Verification Code 382327 , or alternatively scan the QR code.

هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة <http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2019-004066 وكود التأكيد 382327 ، أو بدلا من ذلك مسح QR Code



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : 102506 Date : 12/06/2019
Request No. : 067497 Sample No. : 067497
Senders Ref. : AJ1396 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 10/06/2019
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 10/06/2019
Location : Jabel Ali Sample Received Time : 14:00
Sampled by : AbuBaker Kutty Unit Sampled from : Block Factory
Sample Brought by : AbuBaker Kutty Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 19410190
Sample Description : Masonry Hollow Normal Weight Concrete Block Lot Size : 10080
Work Size of Blocks : L 400 W 300 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 6 | N.G | 03/06/2019 | 10.3 |
| 2 | 36 | N.G | 03/06/2019 | 8.6 |
| 3 | 72 | N.G | 03/06/2019 | 8.8 |
| 4 | 102 | N.G | 03/06/2019 | 9.9 |
| 5 | 132 | N.G | 03/06/2019 | 8.4 |
| 6 | 174 | N.G | 03/06/2019 | 8.8 |
| 7 | 204 | N.G | 03/06/2019 | 10.0 |
| 8 | 222 | N.G | 03/06/2019 | 8.5 |
| 9 | 252 | N.G | 03/06/2019 | 8.9 |
| 10 | 280 | N.G | 03/06/2019 | 9.5 |

Compressive Strength (N/mm²) 9.2 Standard Deviation 0.7

Certificate No. : Not Given
Testing Date : 12/06/2019
Sampling Method : WI -IC - 1002
Sampling Report No : 2019-004066
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : AMK/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17

Issue : 02 / 13.09.2008

Page 1 of 1



Rev. : 01/17.02.2010

Sunny Paily
Technical Manager
(Civil)

For GEOSCIENCE TESTING LABORATORY



SOLID BLOCK
400 X 100 X 200 MM

- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH

Certificate of Compliance

Certificate No. : BBCE-2019-003357
Certificate Date: 19/05/2019
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 19410163
Sample Description : Masonry Solid Normal Weight Concrete Block
Lot Size: 10032 **Color :**
Work size: 400 L1 x 0 L2 x 100 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|---|---------------|------|
| NO6901 | Regular | EMSU0001 COMPRESSIVE STRENGTH OF SOLID MASONRY BLOCKS | 084350 | Pass |
| NO6901 | Regular | EMSU0004 DIMENSION OF SOLID MASONRY BLOCKS | 084351 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: AbuBaker Kutty

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2019-003357 and Verification Code 867967 , or alternatively scan the QR code.

هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2019-003357 وكود التأكيد 867967 ، أو بدلا من ذلك مسح QR Code



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : 084350 Date : 12/05/2019
Request No. : 055334 Sample No. : 055334
Senders Ref. : NO6901 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 07/05/2019
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 07/05/2019
Location : Jabel Ali Sample Received Time : 14:00
Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 19410163
Sample Description : Masonry Solid Normal Weight Concrete Block Lot Size : 10032
Work Size of Blocks : L 400 W 100 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 6 | N.G | 28/04/2019 | 16.5 |
| 2 | 18 | N.G | 28/04/2019 | 18.2 |
| 3 | 42 | N.G | 28/04/2019 | 18.1 |
| 4 | 60 | N.G | 28/04/2019 | 20.1 |
| 5 | 78 | N.G | 28/04/2019 | 16.2 |
| 6 | 102 | N.G | 28/04/2019 | 18.2 |
| 7 | 126 | N.G | 28/04/2019 | 17.5 |
| 8 | 132 | N.G | 28/04/2019 | 17.9 |
| 9 | 144 | N.G | 28/04/2019 | 20.4 |
| 10 | 152 | N.G | 28/04/2019 | 15.7 |

Compressive Strength (N/mm²) 17.9 Standard Deviation 1.5

Certificate No. : Not Given
Testing Date : 12/05/2019
Sampling Method : WI -IC - 1002
Sampling Report No : 2019-003357
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : KHN/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17
Page 1 of 1

Issue : 02 / 13.09.2008



Rev. 01/17.02.2010
Sunny Pally
Technical Manager
(Civil)

For GEOSCIENCE TESTING LABORATORY



Dubai : P.O. Box : 61670, Tel : +971-4-431 4690, Fax : +971-4-431 4570
Website : www.geoscience.ae E-mail : info@gil.ae



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

Report No. : R1DX21-090277 - 090278
Request No. : Q1DX21-053176
Sender's Ref. No : NOT GIVEN
Project Name : IQC
Client Name : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON)
Consultant : NO SPECIFIC CONSULTANT
Contractor : MACON LLC
Address : DUBAI, U.A.E
Sampled By : NAHAS SALIM
Sampling Brought By : GTL'S REPRESENTATIVE



Date : 10/08/2021

Sample No : S1DX21-053176

Project No : NOT GIVEN

Location : MACON
Layer : NOT GIVEN
Source : MACON LLC
Sample Description : MASONRY SOLID NORMAL WEIGHT CONCRETE BLOCK
Color / Class : NOT GIVEN
Work Size (mm) : 400 x 100 x 200
Unit Sampled From : NOT GIVEN
Sample Size : NOT GIVEN
Lot Size : 21410093
Lot No : 21410093
Bundle No : NOT APPLICABLE
Testing Date : 05/08/2021
Sampling Date / Time : 04/08/2021/ NOT GIVEN
Receiving Date : 05/08/2021

RESULT

| PARAMETER | UNIT | RESULT |
|--|----------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | % weight of dried material | 0.47 |

Tested On : 05/08/2021 - 09/08/2021
Sampling Report No : NOT GIVEN
Sampling Method : RANDOM
Sample Preparation : BS 1881 PART 124 : 2015 CLS. 5.5.2
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 2015 CLS. 12.1
ACID SOLUBLE SULPHATE : BS 1881 PART 124 2015 CLS. 12.2
Test Method variation : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE
INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT.
Tested By : HNK
Remarks : NONE



Sethupathi Shanmugavel
Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

Results relates only to the items tested
Reports shall not be reproduced (except in full) without the written approval from the laboratory
Form No: CH - 45 Issue: 01/01.08.2001 Rev.: 04/13.09.2008
Page 1 of 1

For GEOSCIENCE TESTING LABORATORY



SOLID BLOCK
400 X 150 X 200 MM

- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH

Certificate of Compliance

Certificate No. : BBCE-2018-007720
Certificate Date: 22/11/2018
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 18410436
Sample Description : Masonry Solid Normal Weight Concrete Block
Lot Size: 10080 **Color :**
Work size: 400 L1 x 0 L2 x 150 W x 200 H

| Order No | Test Type | Test Carried Out | Test Report N | P/F |
|----------|-----------|---|---------------|------|
| SH2960 | Regular | EMSU0001 COMPRESSIVE STRENGTH OF SOLID MASONRY BLOCKS | 263035 | Pass |
| SH2960 | Regular | EMSU0004 DIMENSION OF SOLID MASONRY BLOCKS | 263036 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: Thayil Sugathan

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not require a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2018-007720 and Verification Code 907169, or alternatively scan the QR code.

هذا المستند معتمد الكترونياً ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2018-007720 وكود التأكيد 907169 ، أو بدلا من ذلك مسح QR Code



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : 263035 Date : 21/11/2018
Request No. : 182719 Sample No. : 182719
Senders Ref. : SH2960 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 20/11/2018
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 20/11/2018
Location : Jabel Ali Sample Received Time : 14:00
Sampled by : Thayil Sugathan Unit Sampled from : Block Factory
Sample Brought by : Thayil Sugathan Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 18410436
Sample Description : Masonry Solid Normal Weight Concrete Block Lot Size : 10080
Work Size of Blocks : L 400 W 150 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 8 | N.G | 07/11/2018 | 18.6 |
| 2 | 24 | N.G | 07/11/2018 | 24.1 |
| 3 | 40 | N.G | 07/11/2018 | 19.6 |
| 4 | 56 | N.G | 07/11/2018 | 19.7 |
| 5 | 72 | N.G | 07/11/2018 | 20.6 |
| 6 | 96 | N.G | 07/11/2018 | 21.2 |
| 7 | 112 | N.G | 07/11/2018 | 20.1 |
| 8 | 144 | N.G | 07/11/2018 | 21.9 |
| 9 | 174 | N.G | 07/11/2018 | 21.5 |
| 10 | 210 | N.G | 07/11/2018 | 17.4 |

Compressive Strength (N/mm²)

20.5

Standard Deviation 1.9

Certificate No. : Not Given
Testing Date : 21/11/2018
Sampling Method : WI -IC - 1002
Sampling Report No : 2018-007720
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : KHN/LSS
Remarks : None



* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17

Issue : 02 / 13.09.2008

Page 1 of 1

Rev. : 01/17/02/2010

Sathy Fally
Technical Manager
(Civil)

For GEOSCIENCE TESTING LABORATORY



LB - 003 - TEST

Dubai : P.O. Box : 61670, Tel : +971-4-431 4690, Fax : +971-4-431 4570
Website : www.geoscience.ae E-mail : info@gtl.ae

Ma Con

**SOLID BLOCK
400 X 200 X 200 MM**

**- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH**

Certificate of Compliance

Certificate No. : BBCE-2020-002306
Certificate Date: 16/08/2020
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 20410174
Sample Description : Masonry Solid Normal Weight Concrete Block
Lot Size: 10080 **Color :**
Work size: 400 L1 x 0 L2 x 200 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|---|---------------|------|
| NP1298 | Regular | EMSU0001 COMPRESSIVE STRENGTH OF SOLID MASONRY BLOCKS | R1DX20-114864 | Pass |
| NP1298 | Regular | EMSU0004 DIMENSION OF SOLID MASONRY BLOCKS | R1DX20-114865 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: Ahtssam Kunigal

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2020-002306 and Verification Code 251659 , or alternatively scan the QR code.



هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2020-002306 وكود التأكيد 251659 ، أو بدلا من ذلك مسح QR Code



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae

TEST REPORT

ACID SOLUBLE CHLORIDE AND SULPHATE
IN HARDENED CONCRETE

| | | | |
|--------------------------|---|----------------------|------------------|
| Report No. | : RCH22-10108 | Report Date | : 23-03-2022 |
| Sample No. | : SCH22-10108 | Project No. | : Not Applicable |
| Project Name | : Internal Quality Check | Sender's Ref. No. | : Not Applicable |
| Consultant | : Not Applicable | Plot No. | : Not Applicable |
| Project Client | : Mansoor Concrete Block Industry LLC (Macon) | Lot No. | : 22410203 |
| Contractor | : Not Applicable | Lot Size | : Not given |
| Location | : Dubai, UAE | Sample brought by | : ALC Rep. |
| Unit sampled from | : Yard | Sampled by | : Client |
| Source | : Macon | Place of sampling | : Plant |
| Class of concrete | : Not Given | Sampling Date | : 18-03-2022 |
| Size of sample | : 1 Nos | Sampling Time | : Not given |
| Nominal size ,mm (LxWxH) | : 400 x 200 x 200 | Sample Received Date | : 18-03-2022 |
| Production Date | : 17-03-2022 | Sample Received Time | : 16:00 Hrs |

Test Results :

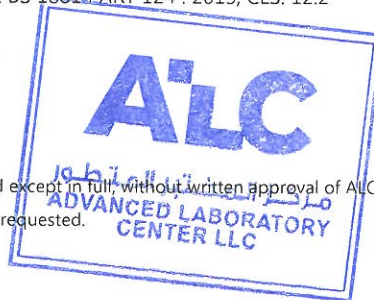
| Parameters | Percent mass of dried material |
|--|--------------------------------|
| Acid soluble chloride as Cl ⁻ | 0.01 |
| Acid soluble sulphate as SO ₃ ²⁻ | 0.45 |

Sample Description : **8" Solid Block**
Testing Date : **19-03-2022 to 22-03-2022**
Tested by : **DKP**

Sampling method : Not given
Test Specimen Preparation : BS 1881 PART 124 : 2015 CLS. 5.5
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015,CLS. 12.1
: ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015, CLS. 12.2
Test variation : None
Remarks : None

for Advanced Laboratory Center

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested.



Issue No./Dt 01/14.04.08 Form No.: CH-19

Revision No./Dt 03/20.05.2021 Page No.: 1 of 1

MATERIALS | METALLURGY | GEOTECHNICAL | CHEMISTRY & LIFE SCIENCES | ENVIRONMENTAL | SPECIAL PRODUCTS

Jabel Ali Industrial Area No: 2 | P.O.Box: 393292, Dubai, UAE | T. +971 4 8867678

Email: info@alcdxb.com | www.alcdxb.com



eiaci
مركز الامارات العماني للتعمير
Emirates International Accreditation Centre
LB-TEST-030

TEST REPORT

DETERMINATION OF BLOCK AND CONCRETE DENSITY OF MASONRY BLOCKS
ASTM C-140

Report Date : 25/03/2022

| | |
|--|--|
| Sample Number : SCN22-10107 | Report Number : RCN22-10107 |
| Project Number : IQC | Plot No. : Not Given |
| Project Name : Internal Quality Check | Sample Source : Macon |
| Project Location : Dubai,U.A.E | Sample Location : Yard |
| Contractor : Mansoor Concrete Block Industry-LLC (MACON) | Sampled By : Contrcator |
| Consultant : N/A | Sampling Date/Time : 18/03/2022 |
| Client : N/A | Sampling Method : ASTM C-140 |
| Client Ref./Req. No. : N/A | Sample Delivered By : ALC Rep. |
| Sample Size : 03 Nos | Production Date : 17-03-2022 |
| Work Size, mm : 400x200x200 | Sample Received Date/Time : 18/03/2022 / 16:00 Hrs |
| Lot No./Lot Size : 22410203 | |

Results :

| SPECIMEN ID | SCN22-10107/1 | SCN22-10107/2 | SCN22-10107/3 |
|---|---------------|---------------|---------------|
| Block density (ρ_b), kg/m ³ | 2230 | 2190 | 2220 |
| Average block density (ρ_b), kg/m ³ | 2210 | | |

Sample Description : 8" Solid Block

Testing Date : 22/03/2022 to 24/03/2022

Tested by : STS

Test Method : ASTM C-140
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/01.04.2021 Form No.: MC-124
Revision No./Dt Page No.: 1 of 1





مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : R1DX20-114864 Date : 15/08/2020
Request No. : Q1DX20-076039 Sample No. : S1DX20-076039
Senders Ref. : NP1298 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 13/08/2020
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 13/08/2020
Location : Jabel Ali Sample Received Time : 14:00

Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 20410174
Sample Description : Masonry Solid Normal Weight Concrete Block Lot Size : 10080
Work Size of Blocks : L 400 W 200 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 8 | N.G | 29/07/2020 | 18.5 |
| 2 | 32 | N.G | 29/07/2020 | 18.7 |
| 3 | 72 | N.G | 29/07/2020 | 16.0 |
| 4 | 112 | N.G | 29/07/2020 | 17.3 |
| 5 | 144 | N.G | 29/07/2020 | 17.5 |
| 6 | 168 | N.G | 29/07/2020 | 17.7 |
| 7 | 192 | N.G | 29/07/2020 | 17.0 |
| 8 | 224 | N.G | 29/07/2020 | 15.2 |
| 9 | 256 | N.G | 29/07/2020 | 17.4 |
| 10 | 280 | N.G | 29/07/2020 | 18.7 |

Compressive Strength (N/mm²)

17.4

Standard Deviation 1.1

Certificate No. : Not Given
Testing Date : 15/08/2020
Sampling Method : WI -IC - 1002
Sampling Report No : 2020-002306
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : KHN/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full)_ without the written approval of the laboratory.

Form : MD/PC-17

Issue : 02 / 13.09.2008

Page 1 of 1



Rev. : 01/17.02.2010

Ajesh K.A.
Unit Head - Materials

For GEOSCIENCE TESTING LABORATORY



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON DIMENSION OF CONCRETE MASONRY BLOCKS

Report No. : R1DX20-114865 Date : 15/08/2020
Request No. : Q1DX20-076039 Sample No. : S1DX20-076039
Senders Ref. : NP1298 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 13/08/2020
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 13/08/2020
Location : Jabel Ali Sample Received Time : 14:00

Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 20410174
Sample Description : Masonry Solid Normal Weight Concrete Block Lot Size : 10080
Work Size of Blocks : L 400 W 200 H 200 Size of Sample : 10

| Specimen No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Production Date | 29/07/2020 | 29/07/2020 | 29/07/2020 | 29/07/2020 | 29/07/2020 | 29/07/2020 | 29/07/2020 | 29/07/2020 | 29/07/2020 | 29/07/2020 |
| Production No. | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G |
| Bundle No. | 8 | 32 | 72 | 112 | 144 | 168 | 192 | 224 | 256 | 280 |
| Length (mm) | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| Height (mm) | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| Average Thickness | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 199 | 200 |
| Average Shell (mm) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Testing Date : 15/08/2020
Sampling Method : WI -IC - 1002
Sampling Report No : 2020-002306
Test Method : BS 6073: Part 1:1981 APP A AMD 4462 - 1984, 3944 - 1982, 14529 - 2003
Test Method Variation : A.1.2 A.1.3 & Average of 6 Thickness Position were Reported.
Tested By : KHN/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full)_ without the written approval of the laboratory.

Form : MD/PC-18

Issue : 02 / 13.09.2008

Page 1 of 1



Rev. : 01/17.02.2010



Ajesh K.A.
Unit Head - Materials

For GEOSCIENCE TESTING LABORATORY

Ma Con

**SOLID BLOCK
400 X 250 X 200 MM**

**- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH**

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DIMENSION OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|-----------------------------|---|-------------------------------------|--------------------|
| Report No: | 198212 | Request No: | EMTX-2020-1006175 |
| Project No: | BA-28 | Report Date: | 22/10/2020 12:24PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | MASONRY SOLID NORMAL WEIGHT CONCRETE BLOCK | | |
| Sampling Date/Time: | 05/10/2020 11:00AM | Lot Number: | 20410175 |
| Receiving Date/Time: | 19/10/2020 04:18PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0500 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400x250x200

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|------------------|-------------|-------|-------|-------|-------|
| NOMINAL SIZE, mm | 400*250*200 | | | | |
| PRODUCTION DATE | 27-07-2020 | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| LENGTH (mm) | 399.5 | 399.5 | 399.5 | 400.0 | 399.5 |
| WIDTH (mm) | 250.0 | 249.5 | 249.5 | 249.5 | 249.5 |
| HEIGHT (mm) | 200.5 | 200.0 | 200.5 | 200.5 | 200.0 |
| SPECIMEN NO | 6 | | | | |
| LENGTH (mm) | 399.5 | | | | |
| WIDTH (mm) | 250.0 | | | | |
| HEIGHT (mm) | 201.0 | | | | |

| | | | |
|----------------------------|-----------------------|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | EJMILLANA |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 19/10/2020 04:18PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS EN 772-16 : 2011 | Test Method Variation: | |

Remarks: - Sampling is performed by the customer

To verify this document please go to :

<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>

Enter Document ID: **EMTX-2020-1006175** and Verification Code: **DJYN**



or Scan the QR code below.



PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF COMPRESSIVE STRENGTH OF MASONRY UNIT | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|-----------------------------|---|-------------------------------------|--------------------|
| Report No: | 198216 | Request No: | EMTX-2020-1006175 |
| Project No: | BA-28 | Report Date: | 22/10/2020 12:24PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | MASONRY SOLID NORMAL WEIGHT CONCRETE BLOCK | | |
| Sampling Date/Time: | 05/10/2020 11:00AM | Lot Number: | 20410175 |
| Receiving Date/Time: | 19/10/2020 04:18PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0500 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400x250x200

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|---|-----------------------------|------|------|------|------|
| PRODUCTION DATE | 27-07-2020 | | | | |
| NOMINAL SIZE | 400 X 250 X 200 | | | | |
| TESTING SIZE (mm) | 400 X 250 X 200 | | | | |
| SURFACE PREPARATION | NO SURFACE PREPARATION | | | | |
| CONDITIONING METHOD | AS PER DMS 1 PART 1-ANNEX A | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| FAILURE LOAD (kN) | 2014 | 1927 | 1496 | 1524 | 1558 |
| COMPRESSIVE STRENGTH (N/mm ²) | 20.2 | 19.3 | 15.0 | 15.3 | 15.6 |
| SPECIMEN NO | 6 | | | | |
| FAILURE LOAD (kN) | 1578 | | | | |
| COMPRESSIVE STRENGTH (N/mm ²) | 15.8 | | | | |
| AVE. COMPRESSIVE STRENGTH | 16.9 | | | | |
| STANDARD DEVIATION | 2.3 | | | | |
| COEFFICIENT OF VARIATION (%) | 13.6 | | | | |



| | | | |
|----------------------------|------------------------------|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | EJMILLANA |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 19/10/2020 04:18PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS EN 772-1 : 2011 ; DMS 001 | Test Method Variation: | NIL |

Remarks: - Sampling is performed by the customer

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| عام / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT CHLORIDE CONTENT OF CONCRETE BLOCKS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION

CHEMICAL ANALYSIS IN CONSTRUCTIONA MATERIAL UNIT

| | | | |
|-----------------------------|---|-------------------------------------|--------------------|
| Report No: | 198747 | Request No: | EMTX-2020-1006175 |
| Project No: | BA-28 | Report Date: | 25/10/2020 10:08AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | MASONRY SOLID NORMAL WEIGHT CONCRETE BLOCK | | |
| Sampling Date/Time: | 05/10/2020 11:00AM | Lot Number: | 20410175 |
| Receiving Date/Time: | 20/10/2020 08:38AM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0500 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400x250x200

TEST RESULTS

| PARAMETER | RESULTS |
|---|------------|
| AVERAGE CHLORIDE % BY MASS OF HARDENED CONCRETE | 0.02 |
| Colour | NA |
| Production date | 27/07/2020 |

| | | | |
|----------------------------|-----------------------|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | REDASH |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 20/10/2020 08:38AM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS 1881-124 : 2015 | Test Method Variation: | NIL |

Remarks: - SAMPLING IS PERFORMED BY THE CUSTOMER

To verify this document please go to :

<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>

Enter Document ID: **EMTX-2020-1006175** and Verification Code: **DJYN**

or Scan the QR code below.



***** END OF REPORT *****

This report is computer approved and authorized by Head of Unit and does not require any signature.





LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| عام / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT SULPHATE CONTENT OF HARDENED CONCRETE | عنوان الوثيقة: | |
| | Doc Ref. DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
CHEMICAL ANALYSIS IN CONSTRUCTIONA MATERIAL UNIT

| | | | |
|-----------------------------|---|-------------------------------------|--------------------|
| Report No: | 198749 | Request No: | EMTX-2020-1006175 |
| Project No: | BA-28 | Report Date: | 25/10/2020 10:09AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | MASONRY SOLID NORMAL WEIGHT CONCRETE BLOCK | | |
| Sampling Date/Time: | 05/10/2020 11:00AM | Lot Number: | 20410175 |
| Receiving Date/Time: | 20/10/2020 08:38AM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0500 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400x250x200

TEST RESULTS

| PARAMETER | RESULTS |
|--|------------------------|
| AVERAGE SULPHATE AS SO3 (%) BY MASS OF HARDENED CONCRETE (CONC. BLOCK) | 0.3 |
| Colour | NA |
| Production date | 27-07-2020 12:37:30 PM |

| | | | |
|----------------------------|--|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | REDASH |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 20/10/2020 08:38AM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS 1881-124 : 2015 cl. 12.2 ADD-06(2002) | Test Method Variation: | NIL |

Remarks: - SAMPLING IS PERFORMED BY THE CUSTOMER

To verify this document please go to :

<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>

Enter Document ID: **EMTX-2020-1006175** and Verification Code: **DJYN**

or Scan the QR code below.



***** END OF REPORT *****

This report is computer approved and authorized by Head of Unit and does not require any signature.





LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

| | | | |
|---|--|--------------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF NET DRY DENSITY OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

**CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT**

| | | | |
|-----------------------------|---|-------------------------------------|--------------------|
| Report No: | 199524 | Request No: | EMTX-2020-1006175 |
| Project No: | BA-28 | Report Date: | 25/10/2020 05:43PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | MASONRY SOLID NORMAL WEIGHT CONCRETE BLOCK | | |
| Sampling Date/Time: | 05/10/2020 11:00AM | Lot Number: | 20410175 |
| Receiving Date/Time: | 19/10/2020 04:18PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0500 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400x250x200

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|--------------------------------------|-----------------|------|------|------|------|
| NOMINAL SIZE | 400 x 250 x 200 | | | | |
| TESTING SIZE | 400 x 250 x 200 | | | | |
| SPECIMEN NO | 7 | 8 | 9 | 10 | 11 |
| NET DRY DENSITY (kg/m ³) | 2050 | 1980 | 1990 | 2000 | 2040 |
| SPECIMEN NO | 12 | | | | |
| NET DRY DENSITY (kg/m ³) | 2000 | | | | |

| | | | |
|----------------------------|-----------------------------|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | EJMILLANA |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 19/10/2020 04:18PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS EN 772-13 : 2000 cl. 7.2 | Test Method Variation: | |

Remarks: - SAMPLING IS PERFORMED BY THE CUSTOMER / PRODUCTION DATE: 27-07-2020

To verify this document please go to :

<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>

Enter Document ID: **EMTX-2020-1006175** and Verification Code: **DJYN**

or Scan the QR code below.



***** END OF REPORT *****

This report is computer approved and authorized by Head of Unit and does not require any signature.



LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON LINEAR DRYING SHRINKAGE OF CONCRETE MASONRY UNITS

Report No. : R1DX21-115574
Request No. : Q1DX21-068755
Sender's Ref. No : Not Given
Project Name : Internal Quality checking
Client Name : Mansoor Concrete Block Industry LLC (MACON)
Consultant : No Specific Consultant
Contractor : No Specific Contractor
Address : Dubai, UAE
Sampled By : Client Rep
Sample Brought by : Client Rep



Date: 23/10/2021
Sample No.: S1DX21-068755
Project No.: IQC
Sampling Date: 07/10/2021
Production Date: 26/10/2021
Sample Received Date: 07/10/2021

Location : Jabel Ali
Lot Size : Not Given
Source : Mansoor Concrete Block Industry LLC (MACON)
Sample Dimension (mm) : 400x250x200mm
Sample Description : Masonry Solid Normal Weight Concrete Block

Lot No: 21410308
Age of specimen at testing: Not Provided
Date Test Started: 09/10/2021
Date Test Completed: 23/10/2021

RESULTS

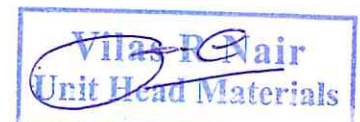
| SPECIMEN ID | DIMENSIONS | MEASUREMENTS | | | | EQUILIBRIUM CONDITION |
|-------------|-----------------------------|---------------------|---------------|--------|--------|-----------------------|
| | | SATURATED CONDITION | DRYING PERIOD | | | |
| | | | 5 DAYS | 7 DAYS | 9 DAYS | |
| A | Weight (g) | 2189 | 2098 | 2087 | 2079 | 2071 |
| | Length (mm) | 14.453 | 14.377 | 14.356 | 14.325 | 14.304 |
| | Linear drying shrinkage (%) | N/A | 0.025 | 0.032 | 0.043 | 0.050 |
| B | Weight (g) | 2229 | 2135 | 2123 | 2119 | 2113 |
| | Length (mm) | 13.804 | 13.726 | 13.704 | 13.674 | 13.651 |
| | Linear drying shrinkage (%) | N/A | 0.026 | 0.033 | 0.043 | 0.051 |
| C | Weight (g) | 2194 | 2103 | 2092 | 2085 | 2078 |
| | Length (mm) | 14.653 | 14.573 | 14.553 | 14.524 | 14.501 |
| | Linear drying shrinkage (%) | N/A | 0.027 | 0.033 | 0.043 | 0.051 |
| D | Weight (g) | 2218 | 2125 | 2114 | 2108 | 2010 |
| | Length (mm) | 13.962 | 13.883 | 13.858 | 13.835 | 13.813 |
| | Linear drying shrinkage (%) | N/A | 0.026 | 0.035 | 0.042 | 0.050 |

Sampling Report No : Not Provided
Sampling Method : Random
Specimen Preparation : ASTM C 426 :2006
Test Method : ASTM C 426 :2006
Test Method variation : None
Tested by : LSS
Remarks : None



Results relates only to the items tested
Reports shall not be reproduced (Except in full) without the written approval of the laboratory

Form : MD/PC-238 Issue : 01/28.03.2011 Rev : 0/-



For GEOSCIENCE TESTING LABORATORY

Ma Con

**SOLID BLOCK
400 X 300 X 200 MM**

**- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH**



Certificate of Compliance

Certificate No. : BBCE-2018-002530
Certificate Date: 19/04/2018
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 18410161
Sample Description : Masonry Solid Normal Weight Concrete Block
Lot Size: 5760 **Color :**
Work size: 400 L1 x 0 L2 x 300 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|---|---------------|------|
| AI6315 | Regular | EMSU0001 COMPRESSIVE STRENGTH OF SOLID MASONRY BLOCKS | 091817 | Pass |
| AI6315 | Regular | EMSU0004 DIMENSION OF SOLID MASONRY BLOCKS | 091818 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: AbuBaker Kutty

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2018-002530 and Verification Code 153595 , or alternatively scan the QR code.

هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2018-002530 وكود التأكيد 153595 ، أو بدلا من ذلك مسح QR Code



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

| | | | |
|--------------------|--|------------------------|------------------------|
| REPORT NO. | : R1DX21-131587 - 131588 | DATE : | 09/12/2021 |
| REQUEST NO. | : Q1DX21-078382 | SAMPLE NO. : | S1DX21-078382 |
| SENDER'S REF. | : NOT GIVEN | PROJECT NO. : | IQC |
| PROJECT NAME | : INTERNAL QUALITY CHECKING | | |
| CLIENT NAME | : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| CONSULTANT | : NO SPECIFIC CONSULTANT | | |
| CONTRACTOR | : NO SPECIFIC CONTRACTOR | | |
| ADDRESS | : DUBAI, UAE | | |
| SAMPLED BY | : NAHAS REPRESENTATIVE | | |
| SAMPLE BROUGHT BY | : GTL'S REPRESENTATIVE | | |
| LOCATION | : MACON | SAMPLE SIZE : | NOT GIVEN |
| LAYER | : SINGLE | LOT SIZE : | NOT GIVEN |
| SOURCE | : MACON | LOT NO. : | NOT GIVEN |
| SAMPLE DESCRIPTION | : 12" SOLID BLOCK NORMAL WEIGHT CONCRETE BLOCK | BUNDLE NO. : | NOT APPLICABLE |
| COLOR/CLASS | : NOT GIVEN | TESTING DATE : | 05/12/2021 |
| WORK SIZE (mm) | : 400 x 300 x 200 | SAMPLING DATE / TIME : | 30/11/2021 / NOT GIVEN |
| UNIT SAMPLE FROM | : NOT GIVEN | RECEIVING DATE : | 05/12/2021 |

RESULT

| PARAMETER | UNIT | CLIENT'S SPECIFICATION | RESULT |
|--|----------------------------|------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | < 0.05 | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | | < 0.5 | 0.45 |

| | |
|-----------------------|--|
| TESTED ON | : 05/12/2021 - 08/12/2021 |
| SAMPLING REPORT NO | : NOT GIVEN |
| SAMPLING METHOD | : RANDOM |
| SAMPLE PREPARATION | : BS 1881 PART 124 : 2015 CLS. 5.5.2 |
| TEST METHOD | : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015 CLS. 12.1 : ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015 CLS. 12.2 |
| TEST METHOD VARIATION | : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT. |
| TESTED BY | : HNK |
| REMARKS | : THE TESTED SAMPLE MEETS THE SPECIFICATION LIMITS SUBMITTED BY THE CLIENT WITH RESPECT TO THE ABOVE PARAMETERS. |



Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

*Results relates only to the items tested.

*Reports shall not be reproduced (except in full) without written approval of the Laboratory.

Form No.: CH-45

Issue : 01/ 01.08.2001

Rev. : 04 / 13.09.2008

Page 1 of 1

For GEOSCIENCE TESTING LABORATORY



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : 091817 Date : 17/04/2018
Request No. : 065066 Sample No. : 065066
Senders Ref. : A16315 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 15/04/2018
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 15/04/2018
Location : Jabel Ali Sample Received Time : 14:00
Sampled by : AbuBaker Kutty Unit Sampled from : Block Factory
Sample Brought by : AbuBaker Kutty Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 18410161
Sample Description : Masonry Solid Normal Weight Concrete Block Lot Size : 5760
Work Size of Blocks : L 400 W 300 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|---|
| | | No. | Date | |
| 1 | 8 | N.G | 12/04/2018 | 16.7 |
| 2 | 32 | N.G | 12/04/2018 | 16.0 |
| 3 | 56 | N.G | 12/04/2018 | 18.1 |
| 4 | 80 | N.G | 12/04/2018 | 17.0 |
| 5 | 104 | N.G | 12/04/2018 | 17.3 |
| 6 | 128 | N.G | 12/04/2018 | 16.1 |
| 7 | 152 | N.G | 12/04/2018 | 18.3 |
| 8 | 184 | N.G | 12/04/2018 | 17.1 |
| 9 | 216 | N.G | 12/04/2018 | 17.7 |
| 10 | 240 | N.G | 12/04/2018 | 16.4 |

Compressive Strength (N/mm²) **17.1** Standard Deviation **0.8**

Certificate No. : Not Given
Testing Date : 17/04/2018
Sampling Method : WI -IC - 1002
Sampling Report No : 2018-002530
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : LSS
Remarks : None



* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17

Issue : 02 / 13.09.2008

Page 1 of 1

Rev: 01/17-02-2010



Sunny Paily
Technical Manager
(Materials)

For GEOSCIENCE TESTING LABORATORY



**THERMAL BLOCKS
400X150X200MM
60MM INSERT**

- **DM CERTIFICATE OF COMPLAINT**
- **TEST REPORT-COMPRESSIVE STRENGTH**

| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF COMPRESSIVE STRENGTH OF MASONRY UNIT | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|---|--|---------------------------------------|--------------------|
| Report No: | 385045 | Request No: | EMTX-2021-1092468 |
| Project No: | BA-28 | Report Date: | 28/12/2021 09:46AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | MACON YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | THERMO SOLID NORMAL WEIGHT (60 MM SANDWICH) | | |
| Product Name: * | 400X150X200MM THERMO SOLID NORMAL WEIGHT 60MM SANDWICH BLOCK | | |
| Sampling Date/Time: * | 15/12/2021 12:30AM | Lot/Batch/Coil/Heat No. * | 21410419 |
| Receiving Date/Time: | 23/12/2021 12:10PM | Lot Size: * | 1372 pieces |
| Sample Size: | 15.00 pieces | Sender No: | LL0525 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X150X200 | | | |

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|---|------------------------|------|-----|-----|------|
| PRODUCTION DATE * | NG | | | | |
| TESTING SIZE (mm) | 400 x 150 x 200 | | | | |
| SURFACE PREPARATION | NO SURFACE PREPARATION | | | | |
| PRODUCT TYPE * | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| FAILURE LOAD (kN) | 621 | 808 | 485 | 567 | 748 |
| COMPRESSIVE STRENGTH (N/mm ²) | 10.4 | 13.5 | 8.1 | 9.5 | 12.5 |
| SPECIMEN NO | 6 | | | | |
| FAILURE LOAD (kN) | 615 | | | | |
| COMPRESSIVE STRENGTH (N/mm ²) | 10.2 | | | | |
| AVE. COMPRESSIVE STRENGTH | 10.7 | | | | |
| STANDARD DEVIATION | 2.0 | | | | |
| COEFFICIENT OF VARIATION (%) | 18.7 | | | | |
| SPECIFICATION LIMIT * | NOT GIVEN | | | | |



| | | | |
|----------------------------|------------------------------|-------------------------------|--------------------|
| Sampled By: | AUDITOR REPRESENTATIVE | Tested By: | JVBRIONES |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 23/12/2021 12:10PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | NA |
| Test Method: | BS EN 772-1 : 2011 ; DMS 001 | Test Method Variation: | NIL |

| | |
|-----------------|--|
| Remarks: | - CUSTOMER PERFORMED SAMPLING AND PROVIDED THE SAMPLE; THE RESULTS APPLY ONLY TO THE SAMPLE AS RECEIVED AND TESTED. NO SEPARATION FOUND BETWEEN THE CONCRETE AND POLYSTYRENE |
|-----------------|--|

PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DIMENSION OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

**CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT**

| | | | |
|---|--|---------------------------------------|--------------------|
| Report No: | 385044 | Request No: | EMTX-2021-1092468 |
| Project No: | BA-28 | Report Date: | 28/12/2021 09:46AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | MACON YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | THERMO SOLID NORMAL WEIGHT (60 MM SANDWICH) | | |
| Product Name: * | 400X150X200MM THERMO SOLID NORMAL WEIGHT 60MM SANDWICH BLOCK | | |
| Sampling Date/Time: * | 15/12/2021 12:30AM | Lot/Batch/Coil/Heat No.* | 21410419 |
| Receiving Date/Time: | 23/12/2021 12:10PM | Lot Size: * | 1372 pieces |
| Sample Size: | 15.00 pieces | Sender No: | LL0525 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X150X200 | | | |

TEST RESULTS



| PARAMETER | RESULTS | | | | |
|----------------------------|--|-------|-------------------------------|--------------------|-------|
| NOMINAL SIZE, mm * | 400 x 150 x 200 | | | | |
| PRODUCTION DATE * | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| LENGTH (mm) | 400.0 | 400.0 | 400.5 | 400.0 | 400.5 |
| WIDTH (mm) | 149.0 | 149.5 | 150.0 | 149.5 | 149.5 |
| HEIGHT (mm) | 201.0 | 200.0 | 200.0 | 200.5 | 200.5 |
| SPECIMEN NO | 6 | | | | |
| LENGTH (mm) | 400.5 | | | | |
| WIDTH (mm) | 150.5 | | | | |
| HEIGHT (mm) | 201.0 | | | | |
| SPECIFICATION LIMIT * | NOT GIVEN | | | | |
| Sampled By: | AUDITOR REPRESENTATIVE | | Tested By: | JVBRIONES | |
| Sampled Brought By: | CLIENT REPRESENTATIVE | | Testing Date: | 23/12/2021 12:10PM | |
| Sampling Method: | DCL-IC-99 | | Sampling Report No: | NA | |
| Test Method: | BS EN 772-16 : 2011 | | Test Method Variation: | NIL | |
| Remarks: | - CUSTOMER PERFORMED SAMPLING AND PROVIDED THE SAMPLE; THE RESULTS APPLY ONLY TO THE SAMPLE AS RECEIVED AND TESTED | | | | |

Disclaimer : * Information is supplied by the customer and Laboratory is not responsible for this data.

PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT CHLORIDE CONTENT OF CONCRETE BLOCKS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
CHEMICAL ANALYSIS IN CONSTRUCTION MATERIAL UNIT

| | | | |
|---|--|---------------------------------------|--------------------|
| Report No: | 385474 | Request No: | EMTX-2021-1092468 |
| Project No: | BA-28 | Report Date: | 29/12/2021 09:57AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | MACON YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | THERMO SOLID NORMAL WEIGHT (60 MM SANDWICH) | | |
| Product Name: * | 400X150X200MM THERMO SOLID NORMAL WEIGHT 60MM SANDWICH BLOCK | | |
| Sampling Date/Time: * | 15/12/2021 12:30AM | Lot/Batch/Coil/Heat No. * | 21410419 |
| Receiving Date/Time: | 26/12/2021 01:24PM | Lot Size: * | 1372 pieces |
| Sample Size: | 15.00 pieces | Sender No: | LL0525 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X150X200 | | | |

TEST RESULTS

| PARAMETER | RESULTS | | |
|---|---|-------------------------------|--------------------|
| AVERAGE CHLORIDE % BY MASS OF HARDENED CONCRETE (Auto Titrator) | 0.04 | | |
| Sampled By: | AUDITOR REPRESENTATIVE | Tested By: | AKALLUVETTY |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 26/12/2021 01:24PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | NA |
| Test Method: | BS 1881-124 : 2015 | Test Method Variation: | Nil |
| Remarks: | - CUSTOMER PERFORMED SAMPLING AND PROVIDED THE SAMPLE; THE RESULTS APPLY ONLY TO THE SAMPLE AS RECEIVED AND TESTED. | | |

Disclaimer : * Information is supplied by the customer and Laboratory is not responsible for this data.

***** END OF REPORT *****

This report is computer approved and authorized by Head of Unit and does not require any signature.



LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

REPORT ON
THERMAL TRANSMISSION PROPERTIES BY CALCULATION METHOD
ACCORDING TO BS EN ISO 6946

REFERENCE NO. : 687-2021
ISSUE DATE : 19/12/2021
CLIENT : Mansoor Concrete Block Industry LLC (MACON)
PRODUCT : Normal Weight Concrete Sandwich solid Masonry Blocks (400*150*200)mm with
60mm Expanded polystyrene insert
PRODUCT DESCRIPTION : Normal Weight Concrete Sandwich solid Masonry Blocks (400*150*200)mm with
60mm Expanded polystyrene insert
PRODUCT WEIGHT (kg) : 17
PRODUCT THICKNESS (m) : 0.15
(PERPENDICULAR TO HEAT FLOW
DIRECTION)

PRODUCT CONFIGURATION :



| Product's COMPONENTS | DENSITY [kg/m ³] | THERMAL CONDUCTIVITY [W/(m.K)] | CONDITION of TEST | | TEST REPORT / REFERENCE |
|----------------------|------------------------------|--------------------------------|-------------------|------|--|
| | | | % RH | °C | |
| Concrete | 2040 | 1.85 | -- | -- | DCL approved material |
| Polystyrene | 25 | 0.03493 | 60±5 | 35±2 | (DCL) report no.(258080) insert manufactured by (styrene insulation) |

| CALCULATION RESULTS | UPPER LIMIT | LOWER LIMIT | AVERAGE |
|---|-------------|-------------|---------|
| THERMAL RESISTANCE [m ² .K/W] | 1.766 | 1.766 | 1.766 |
| EQUIVALENT THERMAL CONDUCTIVITY [W/(m.K)] | | | 0.085 |

REMARKS :

ISSUED BY:

Sameer Darwish ALBojoq
principal field studies researcher

ON BEHALF OF :

ARIF HUSAIN AI MARZOOQI *
PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

* Electronic Document – No Signature Required

DATE: 19/12/2021

To: Mansoor Concrete Block Industry LLC (MACON)

TEL: 048801801

FAX: 048801802

SUBJECT: Thermal transmittance (U) value calculation

Reference is made to your application regarding the subject above, please note the following:

Thermal transmittance (U) value of a wall constructed using 150mm thick. "Sandwich solid Masonry Blocks "as follows

a) Wall configuration:

| Layer | Thickness [mm] | Thermal conductivity [W/m.K] | Thermal Resistance [m ² .K/W] |
|------------------|----------------|------------------------------|--|
| External surface | -- | -- | 0.04 |
| Plaster | 15 | 0.72 | 0.0208 |
| Block* | 150 | 0.085 | 1.76471 |
| Plaster | 15 | 0.72 | 0.0208 |
| Internal surface | -- | -- | 0.12 |
| TOTAL | 180 | -- | 1.96631 |

* See Report on Thermal Transmission Properties issued by DCL; Ref: TT-687-2021 dated on 19/12/2021

b) Thermal transmittance (U-value)

| Description | U-value [W/(m ² .K)] |
|--|---------------------------------|
| Wall Thermal Transmittance (U = 1/R _T) | 0.51 |

Note:

1. This report represents submitted samples only.

REGARDS,

SAMEER DARWISH ALBOJOQ

PRINCIPAL FIELD STUDIES RESEARCHER,

ON BEHALF OF: ARIF HUSAIN AL MARZOOQI*

PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

DUBAI CENTRAL LABORATORY

** Electronic Document – No Signature Required*

TEST REPORT

ACID SOLUBLE CHLORIDE AND SULPHATE
IN HARDENED CONCRETE

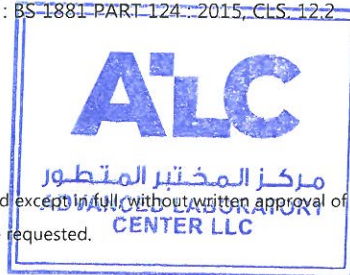
| | | | |
|--------------------------|---|----------------------|------------------|
| Report No. | : RCH22-10110 | Report Date | : 23-03-2022 |
| Sample No. | : SCH22-10110 | Project No. | : Not Applicable |
| Project Name | : Internal Quality Check | Sender's Ref. No. | : Not Applicable |
| Consultant | : Not Applicable | Plot No. | : Not Applicable |
| Project Client | : Mansoor Concrete Block Industry LLC (Macon) | Lot No. | : Not given |
| Contractor | : Not Applicable | Lot Size | : Not given |
| Location | : Dubai, UAE | Sample brought by | : ALC Rep. |
| Unit sampled from | : Yard | Sampled by | : Client |
| Source | : Macon | Place of sampling | : Plant |
| Class of concrete | : Not Given | Sampling Date | : 18-03-2022 |
| Size of sample | : 1 Nos | Sampling Time | : Not given |
| Nominal size ,mm (LxWxH) | : 400 x 150 x 200 | Sample Received Date | : 18-03-2022 |
| Production Date | : Not Given | Sample Received Time | : 16:00 Hrs |

Test Results :

| Parameters | Percent mass of dried material |
|--|--------------------------------|
| Acid soluble chloride as Cl ⁻ | 0.02 |
| Acid soluble sulphate as SO ₃ ²⁻ | 0.44 |

Sample Description : 6" Thermal Block 60mm
Testing Date : 19-03-2022 to 22-03-2022
Tested by : DKP

Sampling method : Not given
Test Specimen Preparation : BS 1881 PART 124 : 2015 CLS. 5.5
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015,CLS. 12.1
: ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015,CLS. 12.2
Test variation : None
Remarks : None



for Advanced Laboratory Center

Signature

This report relates only to the sample tested and shall not be reproduced except in full without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested.

Issue No./Dt 01/14.04.08 Form No.: CH-19

Revision No./Dt 03/20.05.2021 Page No.: 1 of 1

MATERIALS | METALLURGY | GEOTECHNICAL | CHEMISTRY & LIFE SCIENCES | ENVIRONMENTAL | SPECIAL PRODUCTS

TEST REPORT

**DETERMINATION OF BLOCK AND CONCRETE DENSITY OF MASONRY BLOCKS
ASTM C-140**

Report Date : 25/03/2022

| | |
|--|--|
| Sample Number : SCN22-10109 | Report Number : RCN22-10109 |
| Project Number : IQC | Plot No. : Not Given |
| Project Name : Internal Quality Check | Sample Source : Macon |
| Project Location : Dubai,U.A.E | Sample Location : Yard |
| Contractor : Mansoor Concrete Block Industry-LLC (MACON) | Sampled By : Contrcator |
| Consultant : N/A | Sampling Date/Time : 18/03/2022 |
| Client : N/A | Sampling Method : ASTM C-140 |
| Client Ref./Req. No. : N/A | Sample Delivered By : ALC Rep. |
| Sample Size : 03 Nos | Production Date : Not Given |
| Work Size, mm : 400x150x200 | Sample Received Date/Time : 18/03/2022 / 16:00 Hrs |
| Lot No./Lot Size : Not Given | : |

Results :

| SPECIMEN ID | SCN22-10109/1 | SCN22-10109/2 | SCN22-10109/3 |
|---|---------------|---------------|---------------|
| Block density (ρb), kg/m ³ | 2010 | 2030 | 2030 |
| Average block density (ρb), kg/m ³ | 2020 | | |

Sample Description : 6" Thermal Block
Testing Date : 22/03/2022 to 24/03/2022
Tested by : STS

Test Method : ASTM C-140
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC
The sample will be retained for a period of one month. Unless otherwise requested



Issue No./Dt 01/01.04.2021 Form No.: MC-124
Revision No./Dt Page No.: 1 of 1





**THERMAL BLOCK
400 X 200 X 200 MM**

- DM CERTIFICATE OF COMPLIANCE**
- TEST REPORT - COMPRESSIVE STRENGTH**
- THERMAL TRANSMITTANCE (U VALUE)**

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT CHLORIDE CONTENT OF CONCRETE BLOCKS | عنوان الوثيقة: | |
| | Doc Ref. DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION

CHEMICAL ANALYSIS IN CONSTRUCTIONA MATERIAL UNIT

| | | | |
|-----------------------------|--|-------------------------------------|--------------------|
| Report No: | 199938 | Request No: | EMTX-2020-1006440 |
| Project No: | BA-28 | Report Date: | 26/10/2020 12:12PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | THERMO NORMAL W.THIN CAVITIES(60MM SANDWICH) | | |
| Sampling Date/Time: | 05/10/2020 12:00PM | Lot Number: | 20410182 |
| Receiving Date/Time: | 20/10/2020 08:36AM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0491 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400X200X200 MM

TEST RESULTS

| PARAMETER | RESULTS |
|---|------------|
| AVERAGE CHLORIDE % BY MASS OF HARDENED CONCRETE | 0.01 |
| Colour | NA |
| Production date | 22/07/2020 |

| | | | |
|----------------------------|-----------------------|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | REDASH |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 20/10/2020 08:36AM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS 1881-124 : 2015 | Test Method Variation: | NIL |

Remarks: - SAMPLING IS PERFORMED BY THE CUSTOMER

To verify this document please go to :

<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>

Enter Document ID: **EMTX-2020-1006440** and Verification Code: **DJYN**

or Scan the QR code below.



***** END OF REPORT *****

This report is computer approved and authorized by Head of Unit and does not require any signature.





LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| عام / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT SULPHATE CONTENT OF HARDENED CONCRETE | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
CHEMICAL ANALYSIS IN CONSTRUCTIONA MATERIAL UNIT

| | | | |
|-----------------------------|--|-------------------------------------|--------------------|
| Report No: | 199939 | Request No: | EMTX-2020-1006440 |
| Project No: | BA-28 | Report Date: | 26/10/2020 12:12PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | THERMO NORMAL W.THIN CAVITIES(60MM SANDWICH) | | |
| Sampling Date/Time: | 05/10/2020 12:00PM | Lot Number: | 20410182 |
| Receiving Date/Time: | 20/10/2020 08:37AM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0491 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400X200X200 MM

TEST RESULTS

| PARAMETER | RESULTS |
|--|------------------------|
| CEMENT CONTENT AS GIVEN BY CLIENT (%) | 100 |
| AVERAGE SULPHATE AS SO3 (%) BY MASS OF HARDENED CONCRETE (CONC. BLOCK) | 0.2 |
| Colour | NA |
| Production date | 27-07-2020 01:36:29 PM |

| | | | |
|----------------------------|--|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | REDASH |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 20/10/2020 08:37AM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS 1881-124 : 2015 cl. 12.2 ADD-06(2002) | Test Method Variation: | NIL |
| Remarks: | - SAMPLING IS PERFORMED BY THE CUSTOMER | | |

To verify this document please go to :

<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>

Enter Document ID: **EMTX-2020-1006440** and Verification Code: **DJYN**

or Scan the QR code below.



***** END OF REPORT *****



This report is computer approved and authorized by Head of Unit and does not require any signature.



PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| عام / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DIMENSION OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|--|--|-------------------------------------|--------------------|
| Report No: | 196633 | Request No: | EMTX-2020-1006440 |
| Project No: | BA-28 | Report Date: | 19/10/2020 01:35PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | THERMO NORMAL W.THIN CAVITIES(60MM SANDWICH) | | |
| Sampling Date/Time: | 05/10/2020 12:00PM | Lot Number: | 20410182 |
| Receiving Date/Time: | 18/10/2020 12:29PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0491 |
| Material/Mix Type: | | Laying Date/Production Date: | |
| Nominal Size / Working Block Size L * T * H (mm) : 400X200X200 MM | | | |

TEST RESULTS



| PARAMETER | RESULTS | | | | |
|-----------------|-----------------|-------|-------|-------|-------|
| NOMINAL SIZE | 400 X 200 X 200 | | | | |
| PRODUCTION DATE | 27/07/2020 | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| LENGTH (mm) | 399.5 | 400.0 | 400.0 | 399.0 | 399.5 |
| WIDTH (mm) | 198.5 | 199.0 | 199.5 | 199.5 | 200.0 |
| HEIGHT (mm) | 202.0 | 203.0 | 203.0 | 200.5 | 200.0 |
| SPECIMEN NO | 6 | | | | |
| LENGTH (mm) | 399.5 | | | | |
| WIDTH (mm) | 199.0 | | | | |
| HEIGHT (mm) | 202.5 | | | | |

| | | | |
|----------------------------|-----------------------|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | EJMILLANA |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 18/10/2020 12:29PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS EN 772-16 : 2011 | Test Method Variation: | NIL |

Remarks: - Sampling is performed by the customer

To verify this document please go to :
<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>
 Enter Document ID: **EMTX-2020-1006440** and Verification Code: **DJYN**
 or Scan the QR code below.



| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF COMPRESSIVE STRENGTH OF MASONRY UNIT | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|--|--|-------------------------------------|--------------------|
| Report No: | 196634 | Request No: | EMTX-2020-1006440 |
| Project No: | BA-28 | Report Date: | 19/10/2020 01:36PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | THERMO NORMAL W.THIN CAVITIES(60MM SANDWICH) | | |
| Sampling Date/Time: | 05/10/2020 12:00PM | Lot Number: | 20410182 |
| Receiving Date/Time: | 18/10/2020 12:30PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0491 |
| Material/Mix Type: | | Laying Date/Production Date: | |
| Nominal Size / Working Block Size L * T * H (mm) : 400X200X200 MM | | | |

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|---|-------------------------------|------|------|-----|------|
| PRODUCTION DATE | 27/07/2020 | | | | |
| NOMINAL SIZE | 400 X 200 X 200 | | | | |
| TESTING SIZE (mm) | 400 X 200 X 200 | | | | |
| SURFACE PREPARATION | NO SURFACE PREPARATION | | | | |
| CONDITIONING METHOD | AS PER DMS 1 : PART 5 ANNEX A | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| FAILURE LOAD (kN) | 757 | 867 | 929 | 747 | 846 |
| COMPRESSIVE STRENGTH (N/mm ²) | 9.5 | 10.9 | 11.6 | 9.4 | 10.6 |
| SPECIMEN NO | 6 | | | | |
| FAILURE LOAD (kN) | 784 | | | | |
| COMPRESSIVE STRENGTH (N/mm ²) | 9.9 | | | | |
| AVE. COMPRESSIVE STRENGTH | 10.3 | | | | |
| STANDARD DEVIATION | 0.9 | | | | |
| COEFFICIENT OF VARIATION (%) | 8.7 | | | | |

| | | | |
|----------------------------|--|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | EJMILLANA |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 18/10/2020 12:30PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS EN 772-1 : 2011 ; DMS 001 | Test Method Variation: | NIL |
| Remarks: | - Sampling is performed by the customer / NO SEPARATION FOUND BETWEEN CONCRETE & POLYSTYRENE | | |

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

REPORT ON
THERMAL TRANSMISSION PROPERTIES BY CALCULATION METHOD
ACCORDING TO BS EN ISO 6946

REFERENCE NO. : 2020-662
ISSUE DATE : 22/10/2020
CLIENT : Mansoor Concrete Block Industry-LLC (MACON)
400X200X200 mm Normal Weight Thin Cavity Thermo Block 60mm Insert
PRODUCT :
PRODUCT DESCRIPTION : 400X200X200 mm Normal Weight Thin Cavity Thermo Block 60mm Insert
PRODUCT WEIGHT (kg) : 20
PRODUCT THICKNESS (m) : 0.2
(PERPENDICULAR TO HEAT FLOW DIRECTION)

PRODUCT CONFIGURATION :



| Product's COMPONENTS | DENSITY [kg/m ³] | THERMAL CONDUCTIVITY [W/(m.K)] | CONDITION of TEST | | TEST REPORT / REFERENCE |
|----------------------|------------------------------|--------------------------------|-------------------|----|-------------------------|
| | | | % RH | °C | |
| Concrete | 2210 | 1.85 | -- | -- | DCL approved material |
| polystyrene | 25 | 0.033 | | | DCL 100422652 |

| CALCULATION RESULTS | UPPER LIMIT | LOWER LIMIT | AVERAGE |
|---|-------------|-------------|---------|
| THERMAL RESISTANCE [m ² .KW] | 2.106 | 1.921 | 2.013 |
| EQUIVALENT THERMAL CONDUCTIVITY [W/(m.K)] | | | 0.099 |

REMARKS :

ISSUED BY:

SAMEER DARWISH ALBOJOQ
PRINCIPAL FIELD STUDIES RESEARCHER

ON BEHALF OF :

ARIF HUSAIN AI MARZOOQI *
PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

* Electronic Document – No Signature Required

DATE: 22/10/2020

To: Mansoor Concrete Block Industry-LLC (MACON)

TEL: 971 4 8801 801

FAX: 971 4 8801 802

SUBJECT: Thermal transmittance (U) value calculation

Reference is made to your application regarding the subject above, please note the following:

1. Thermal transmittance (U) value of a wall constructed using "Normal Weight sandwich thin cavities concrete Blocks (400*200 *200)mm with 60 EPS insert is as follows:

a) Wall configuration:

| Layer | Thickness [mm] | Thermal conductivity [W/m.K] | Thermal Resistance [m ² .K/W] |
|------------------|----------------|------------------------------|--|
| External surface | -- | -- | 0.04 |
| Plaster | 15 | 0.72 | 0.0208 |
| Block* | 200 | 0.099 | 2.0202 |
| Plaster | 15 | 0.72 | 0.0208 |
| Internal surface | -- | -- | 0.12 |
| TOTAL | 230 | -- | 2.2218 |

* See Report on Thermal Transmission Properties issued by DCL; Ref: 2020- 662

b) Thermal transmittance (U-value)

| Description | U-value [W/(m ² .K)] |
|--|---------------------------------|
| Wall Thermal Transmittance (U = 1/R _T) | 0.45 |

Note:

1. This report represents submitted samples only.

REGARDS,

SAMEER DARWISH ALBOJOQ

PRINCIPAL FIELD STUDIES RESEARCHER

ON BEHALF OF: ARIF HUSAIN AL MARZOOQI*

PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

DUBAI CENTRAL LABORATORY

** Electronic Document – No Signature Required*



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

| | | | |
|--------------------|--|----------------------|--------------------------|
| REPORT NO. | : R1DX21-131583 - 131584 | DATE | : 09/12/2021 |
| REQUEST NO. | : Q1DX21-078380 | SAMPLE NO. | : S1DX21-078380 |
| SENDER'S REF. | : NOT GIVEN | PROJECT NO. | : IQC |
| PROJECT NAME | : INTERNAL QUALITY CHECKING | | |
| CLIENT NAME | : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| CONSULTANT | : NO SPECIFIC CONSULTANT | | |
| CONTRACTOR | : NO SPECIFIC CONTRACTOR | | |
| ADDRESS | : DUBAI, UAE | | |
| SAMPLED BY | : NAHAS REPRESENTATIVE | | |
| SAMPLE BROUGHT BY | : GTL'S REPRESENTATIVE | | |
| LOCATION | : MACON | SAMPLE SIZE | : NOT GIVEN |
| LAYER | : SINGLE | LOT SIZE | : NOT GIVEN |
| SOURCE | : MACON | LOT NO. | : NOT GIVEN |
| SAMPLE DESCRIPTION | : 8" THERMAL NORMAL WEIGHT CONCRETE BLOCK - 60mm EPS | BUNDLE NO. | : NOT APPLICABLE |
| COLOR/CLASS | : NOT GIVEN | TESTING DATE | : 05/12/2021 |
| WORK SIZE (mm) | : 400 x 200 x 200 - 60mm EPS | SAMPLING DATE / TIME | : 30/11/2021 / NOT GIVEN |
| UNIT SAMPLE FROM | : NOT GIVEN | RECEIVING DATE | : 05/12/2021 |

RESULT

| PARAMETER | UNIT | CLIENT'S SPECIFICATION | RESULT |
|--|----------------------------|------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | < 0.05 | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | | < 0.5 | 0.44 |

| | |
|-----------------------|--|
| TESTED ON | : 05/12/2021 - 08/12/2021 |
| SAMPLING REPORT NO | : NOT GIVEN |
| SAMPLING METHOD | : RANDOM |
| SAMPLE PREPARATION | : BS 1881 PART 124 : 2015 CLS. 5.5.2 |
| TEST METHOD | : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015 CLS. 12.1 : ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015 CLS. 12.2 |
| TEST METHOD VARIATION | : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT. |
| TESTED BY | : HNK |
| REMARKS | : THE TESTED SAMPLE MEETS THE SPECIFICATION LIMITS SUBMITTED BY THE CLIENT WITH RESPECT TO THE ABOVE PARAMETERS. |



Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

*Results relates only to the items tested.
*Reports shall not be reproduced (except in full) without written approval of the Laboratory.
Form No.: CH-45 Issue : 01/ 01.08.2001 Rev. : 04 / 13.09.2008
Page 1 of 1

For GEOSCIENCE TESTING LABORATORY



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

Report No. : R1DX21-090275 - 090276
Request No. : Q1DX21-053175
Sender's Ref. No : NOT GIVEN
Project Name : IQC
Client Name : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON)
Consultant : NO SPECIFIC CONSULTANT
Contractor : MACON LLC
Address : DUBAI, U.A.E
Sampled By : NAHAS SALIM
Sampling Brought By : GTL'S REPRESENTATIVE



Date : 10/08/2021

Sample No : S1DX21-053175

Project No : NOT GIVEN

Location : MACON
Layer : NOT GIVEN
Source : MACON LLC
Sample Description : THERMAL BLOCK 60 mm INSERT
Color / Class : NOT GIVEN
Work Size (mm) : 400 x 200 x 200
Unit Sampled From : NOT GIVEN
Sample Size : NOT GIVEN
Lot Size : 21410251
Lot No : 21410251
Bundle No : NOT APPLICABLE
Testing Date : 05/08/2021
Sampling Date / Time : 04/08/2021/ NOT GIVEN
Receiving Date : 05/08/2021

RESULT

| PARAMETER | UNIT | RESULT |
|--|----------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | % weight of dried material | 0.48 |

Tested On : 05/08/2021 - 09/08/2021
Sampling Report No : NOT GIVEN
Sampling Method : RANDOM
Sample Preparation : BS 1881 PART 124 : 2015 CLS. 5.5.2
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 2015 CLS. 12.1
ACID SOLUBLE SULPHATE : BS 1881 PART 124 2015 CLS. 12.2
Test Method variation : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE
INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT.
Tested By : HNK
Remarks : NONE



Sethupathi Shanmugavel
Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

Results relates only to the items tested
Reports shall not be reproduced (except in full) without the written approval from the laboratory
Form No: CH - 45 Issue: 01/01.08.2001 Rev.: 04/13.09.2008
Page 1 of 1

For GEOSCIENCE TESTING LABORATORY

TEST REPORT

**ACID SOLUBLE CHLORIDE AND SULPHATE
IN HARDENED CONCRETE**

| | | | |
|--------------------------|---|----------------------|------------------|
| Report No. | : RCH22-10114 | Report Date | : 23-03-2022 |
| Sample No. | : SCH22-10114 | Project No. | : Not Applicable |
| Project Name | : Internal Quality Check | Sender's Ref. No. | : Not Applicable |
| Consultant | : Not Applicable | Plot No. | : Not Applicable |
| Project Client | : Mansoor Concrete Block Industry LLC (Macon) | Lot No. | : 22410201 |
| Contractor | : Not Applicable | Lot Size | : Not given |
| Location | : Dubai, UAE | Sample brought by | : ALC Rep. |
| Unit sampled from | : Yard | Sampled by | : Client |
| Source | : Macon | Place of sampling | : Plant |
| Class of concrete | : Not Given | Sampling Date | : 18-03-2022 |
| Size of sample | : 1 Nos | Sampling Time | : Not given |
| Nominal size ,mm (LxWxH) | : 400 x 200 x 200 | Sample Received Date | : 18-03-2022 |
| Production Date | : 16-03-2022 | Sample Received Time | : 16:00 Hrs |

Test Results :

| Parameters | Percent mass of dried material |
|--|--------------------------------|
| Acid soluble chloride as Cl ⁻ | 0.01 |
| Acid soluble sulphate as SO ₃ ²⁻ | 0.45 |

Sample Description : **8" Thermal 60mm Light Weight Block**
Testing Date : **19-03-2022 to 22-03-2022**
Tested by : **DKP**

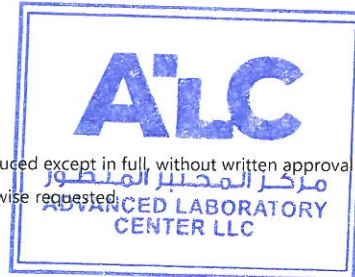
Sampling method : Not given
Test Specimen Preparation : BS 1881 PART 124 : 2015 CLS. 5.5
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015,CLS. 12.1
: ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015, CLS. 12.2
Test variation : None
Remarks : None

for Advanced Laboratory Center

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested.

Issue No./Dt 01/14.04.08 Form No.: CH-19

Revision No./Dt 03/20.05.2021 Page No.: 1 of 1



TEST REPORT

**DETERMINATION OF BLOCK AND CONCRETE DENSITY OF MASONRY BLOCKS
ASTM C-140**

Report Date : 25/03/2022

| | |
|---|---|
| Sample Number : SCN22-10113 | Report Number : RCN22-10113 |
| Project Number : IQC | Plot No. : Not Given |
| Project Name : Internal Quality Check | Sample Source : Macon |
| Project Location : Dubai,U.A.E | Sample Location : Yard |
| Contractor : Mansoor Concrete Block Industry-LLC (MACON) | Sampled By : Contractor |
| Consultant : N/A | Sampling Date/Time : 18/03/2022 |
| Client : N/A | Sampling Method : ASTM C-140 |
| Client Ref./Req. No. : N/A | Sample Delivered By : ALC Rep. |
| Sample Size : 03 Nos | Production Date : 16/03/2022 |
| Work Size, mm : 400x200x200 | Sample Received Date/Time : 18/03/2022 / 16:00 Hrs |
| Lot No./Lot Size : 22410201 | |

Results :

| SPECIMEN ID | SCN22-10113/1 | SCN22-10113/2 | SCN22-10113/3 |
|---|---------------|---------------|---------------|
| Block density (ρ_b), kg/m ³ | 2050 | 2020 | 2060 |
| Average block density (ρ_b), kg/m ³ | 2040 | | |

Sample Description : **Thermal Leight Weight Block**
Testing Date : **22/03/2022 to 24/03/2022**
Tested by : **STS**

Test Method : **ASTM C-140**
Test variation : **None**
Remarks : **None**

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/01.04.2021 Form No.: MC-124
Revision No./Dt Page No.: 1 of 1



Ma Con

**THERMAL BLOCK
400 X 250 X 200 MM
60 MM INSERT**

- DM CERTIFICATE OF COMPLIANCE**
- TEST REPORT - COMPRESSIVE STRENGTH**
- THERMAL TRANSMITTANCE (U VALUE)**

Certificate of Compliance

Certificate No. : BBCE-2020-000564
Certificate Date: 23/02/2020
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 20410052
Sample Description : Thermoblock Hollow Normal Weight 60 Mm Insert
Lot Size: 19980 **Color :**
Work size: 400 L1 x 0 L2 x 250 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|--|---------------|------|
| NO9958 | Regular | EMSU0002 COMPRESSIVE STRENGTH OF HOLLOW MASONRY BLOCKS | R1DX20-023725 | Pass |
| NO9958 | Regular | EMSU0005 DIMENSION OF HOLLOW MASONRY BLOCKS | R1DX20-023726 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: Ahtssam Kunigal

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2020-000564 and Verification Code 276177 , or alternatively scan the QR code.



هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2020-000564 وكود التأكيد 276177 ، أو بدلا من ذلك مسح QR Code



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : R1DX20-023725 Date : 19/02/2020
Request No. : Q1DX20-016103 Sample No. : S1DX20-016103
Senders Ref. : NO9958 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 16/02/2020
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 16/02/2020
Location : Jabel Ali Sample Received Time : 14:00

Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 20410052
Sample Description : Thermoblock Hollow Normal Weight 60mm Weight Lot Size : 19980
Work Size of Blocks : L 400 W 250 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 6 | N.G | 08/02/2020 | 7.8 |
| 2 | 36 | N.G | 08/02/2020 | 9.8 |
| 3 | 78 | N.G | 08/02/2020 | 10.2 |
| 4 | 114 | N.G | 08/02/2020 | 10.4 |
| 5 | 174 | N.G | 08/02/2020 | 10.4 |
| 6 | 222 | N.G | 08/02/2020 | 10.5 |
| 7 | 294 | N.G | 08/02/2020 | 9.5 |
| 8 | 342 | N.G | 08/02/2020 | 9.3 |
| 9 | 396 | N.G | 08/02/2020 | 7.9 |
| 10 | 444 | N.G | 08/02/2020 | 9.4 |

Compressive Strength (N/mm²)

9.5

Standard Deviation 1.0

Certificate No. : Not Given
Testing Date : 19/02/2020
Sampling Method : WI -IC - 1002
Sampling Report No : 2020-000564
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : ANM/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17

Issue : 02 / 13.09.2008

Page 1 of 1



Rev. : 01/17.03.2010

Ajesh K.A.
Unit Head - Materials

For GEOSCIENCE TESTING LABORATORY



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON DIMENSION OF CONCRETE MASONRY BLOCKS

Report No. : R1DX20-023726 Date : 19/02/2020
Request No. : Q1DX20-016103 Sample No. : S1DX20-016103
Senders Ref. : NO9958 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 16/02/2020
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 16/02/2020
Location : Jabel Ali Sample Received Time : 14:00

Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 20410052
Sample Description : Thermoblock Hollow Normal Weight 60mm Weight Lot Size : 19980
Work Size of Blocks : L 400 W 250 H 200 Size of Sample : 10

| Specimen No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Production Date | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 | 08/02/2020 |
| Production No. | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G | N.G |
| Bundle No. | 6 | 36 | 78 | 114 | 174 | 222 | 294 | 342 | 396 | 444 |
| Length (mm) | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| Height (mm) | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| | P | P | P | P | P | P | P | P | P | P |
| Average Thickness | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| Average Shell (mm) | 28 | 28 | 27 | 28 | 28 | 28 | 28 | 28 | 28 | 28 |

Testing Date : 19/02/2020
Sampling Method : WI -IC - 1002
Sampling Report No : 2020-000564
Test Method : BS 6073: Part 1:1981 APP A AMD 4462 - 1984, 3944 - 1982, 14523 - 2003
Test Method Variation : A.1.2 A.1.3 & Average of 6 Thickness Position were Reported
Tested By : ANM/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-18

Issue : 02 / 13.09.2008

Page 1 of 1



Ajesh K.A.
Unit Head - Materials

For GEOSCIENCE TESTING LABORATORY

REPORT ON
THERMAL TRANSMISSION PROPERTIES BY CALCULATION METHOD
ACCORDING TO BS EN ISO 6946

REFERENCE NO. : TT-423-2017
 ISSUE DATE : 29/11/2017
 CLIENT : Mansoor Concrete Block Industry
 PRODUCT : 250 mm thick Concrete-Polystyrene Sandwich Hollow Masonry block
 Normal Weight Concrete-Polystyrene Sandwich Masonry Hollow Blocks
 PRODUCT DESCRIPTION : (400*250*200)mm with 60 mm thick Expanded polystyrene insert
 PRODUCT WEIGHT (kg) : 25
 PRODUCT THICKNESS (m) : 0.25
 (PERPENDICULAR TO HEAT FLOW DIRECTION)

PRODUCT CONFIGURATION :



| Product's COMPONENTS | DENSITY [kg/m ³] | THERMAL CONDUCTIVITY [W/(m.K)] | CONDITION of TEST | | TEST REPORT / REFERENCE |
|----------------------|------------------------------|--------------------------------|-------------------|------|--|
| | | | % RH | °C | |
| Concrete | 2140 | 1.85 | -- | -- | DCL approved material |
| Polystyrene | 28 | 0.0356 | 60±5 | 35±2 | DCL report no. 2016105693 insert manufactured by STYROPACK FOR PLASTIC FACTORY |

| CALCULATION RESULTS | UPPER LIMIT | LOWER LIMIT | AVERAGE |
|---|-------------|-------------|---------|
| THERMAL RESISTANCE [m ² .K/W] | 2.025 | 1.847 | 1.936 |
| EQUIVALENT THERMAL CONDUCTIVITY [W/(m.K)] | | | 0.129 |

REMARKS :

ISSUED BY:
 MARIAM ALKHAROUSI
 SENIOR PRODUCTS QUALITY ENGINEER

ON BEHALF OF :
 ARIF HUSAIN AI MARZOOQI *
 HEAD OF RESEARCH & STANDARDIZATION MANAGEMENT OFFICE

* Electronic Document – No Signature Required

DATE: 29/11/2017

To: Mansoor Concrete Block Industry
TEL: 04-8801801
FAX: 04-8801802

SUBJECT: Thermal transmittance (U) value calculation

Reference is made to your application dated 26/11/2017 regarding the subject above, please note the following:

1. Thermal transmittance (U) value of a wall constructed using "250 mm Thick, Normal Weight Concrete-Polystyrene Sandwich Masonry Hollow Blocks with 60 mm thick Expanded polystyrene insert" is as follows:

a) Wall configuration:

| Layer | Thickness [mm] | Thermal conductivity [W/m.K] | Thermal Resistance [m ² .K/W] |
|------------------|----------------|------------------------------|--|
| External surface | -- | -- | 0.04 |
| Plaster | 15 | 0.72 | 0.0208 |
| Block* | 250 | 0.128 | 1.95313 |
| Plaster | 15 | 0.72 | 0.0208 |
| Internal surface | -- | -- | 0.12 |
| TOTAL | 280 | -- | 2.15473 |

* See Report on Thermal Transmission Properties issued by DCL; Ref: TT-422-2017 dated on 29/11/2017

b) Thermal transmittance (U-value)

| Description | U-value [W/(m ² .K)] |
|--|---------------------------------|
| Wall Thermal Transmittance (U = 1/R _T) | 0.46 |

Note:

1. This report represents submitted samples only.

REGARDS,

ENG. MARIAM ALKHAROUSI
SENIOR PRODUCTS QUALITY ENGINEER

ON BEHALF OF : ARIF HUSAIN AL MARZOOQI*
HEAD OF PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY

* Electronic Document – No Signature Required



رؤيتنا: بناء مدينة متميزة توفر فيها الأساسيات الأساسية للحياة، ومفومات النجاح.
Our Vision: Creating an Excellent City that Provides the Essence of Success and Comfort of Sustainable Living



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

Report No. : R1DX21-090271 - 090272
Request No. : Q1DX21-053173
Sender's Ref. No : NOT GIVEN
Project Name : IQC
Client Name : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON)
Consultant : NO SPECIFIC CONSULTANT
Contractor : MACON LLC
Address : DUBAI, U.A.E
Sampled By : NAHAS
Sampling Brought By : GTL'S REPRESENTATIVE



Date : 10/08/2021

Sample No : S1DX21-053173

Project No : NOT GIVEN

Location : MACON
Layer : BLOCK
Source : MACON LLC
Sample Description : THERMAL LIGHT WEIGHT BLOCK 60 mm INSERT
Color / Class : NOT GIVEN
Work Size (mm) : 400 x 250 x 200 (10")
Unit Sampled From : NOT GIVEN
Sample Size : NOT GIVEN
Lot Size : 21410225
Lot No : 21410225
Bundle No : NOT APPLICABLE
Testing Date : 05/08/2021
Sampling Date / Time : 04/08/2021/ NOT GIVEN
Receiving Date : 05/08/2021

RESULT

| PARAMETER | UNIT | RESULT |
|--|----------------------------|--------|
| ACID SOLUBLE CHLORIDE as CT | % weight of dried material | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | % weight of dried material | 0.44 |

Tested On : 05/08/2021 - 09/08/2021
Sampling Report No : NOT GIVEN
Sampling Method : RANDOM
Sample Preparation : BS 1881 PART 124 : 2015 CLS. 5.5.2
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 2015 CLS. 12.1
ACID SOLUBLE SULPHATE : BS 1881 PART 124 2015 CLS. 12.2
Test Method variation : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE
INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT.
Tested By : HNK
Remarks : NONE



Results relates only to the items tested
Reports shall not be reproduced (except in full) without the written approval from the laboratory
Form No: CH - 45 Issue: 01/01.08.2001 Rev.: 04/13.09.2008
Page 1 of 1

Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

For GEOSCIENCE TESTING LABORATORY



THERMAL BLOCK
400 X 250 X 200 MM
110 MM INSERT

- DM CERTIFICATE OF COMPLIANCE**
- TEST REPORT - COMPRESSIVE STRENGTH**
- THERMAL TRANSMITTANCE (U VALUE)**

Certificate of Compliance

Certificate No. : BBCE-2019-002623
Certificate Date: 28/04/2019
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 19410137
Sample Description : Thermoblock Solid Normal Weight 110mm Insert
Lot Size: 19980 **Color :**
Work size: 400 L1 x 0 L2 x 250 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|---|---------------|------|
| NO6567 | Regular | EMSU0001 COMPRESSIVE STRENGTH OF SOLID MASONRY BLOCKS | 066960 | Pass |
| NO6567 | Regular | EMSU0004 DIMENSION OF SOLID MASONRY BLOCKS | 066961 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: Ahtssam Kunigal

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2019-002623 and Verification Code 155596 , or alternatively scan the QR code.

هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2019-002623 وكود التأكيد 155596 ، أو بدلا من ذلك مسح QR Code



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : 066960 Date : 20/04/2019
Request No. : 044799 Sample No. : 044799
Senders Ref. : NO6567 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 14/04/2019
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 14/04/2019
Location : Jabel Ali Sample Received Time : 14:00
Sampled by : Ahtssam Kunigal Unit Sampled from : Block Factory
Sample Brought by : Ahtssam Kunigal Area No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Plot No. : Not Given
Sample Description : Thermoblock Solid Normal Weight 110mm Insert Lot No. : 19410137
Work Size of Blocks : L 400 W 250 H 200 Lot Size : 19980
Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 6 | N.G | 04/04/2019 | 12.3 |
| 2 | 54 | N.G | 04/04/2019 | 13.7 |
| 3 | 102 | N.G | 04/04/2019 | 13.0 |
| 4 | 156 | N.G | 04/04/2019 | 14.6 |
| 5 | 198 | N.G | 04/04/2019 | 11.9 |
| 6 | 246 | N.G | 04/04/2019 | 13.6 |
| 7 | 294 | N.G | 04/04/2019 | 14.0 |
| 8 | 342 | N.G | 04/04/2019 | 11.6 |
| 9 | 390 | N.G | 04/04/2019 | 13.9 |
| 10 | 444 | N.G | 04/04/2019 | 14.2 |

Compressive Strength (N/mm²) 13.3 Standard Deviation 1.0

Certificate No. : Not Given
Testing Date : 20/04/2019
Sampling Method : WI -IC - 1002
Sampling Report No : 2019-002623
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17

Issue : 02 / 13.09.2008

Page 1 of 1



Rev. : 01/17.02.2010

Sunry Paily
Technical Manager
(Civil)

For GEOSCIENCE TESTING LABORATORY



Dubai : P.O. Box : 61670, Tel : +971-4-431 4690, Fax : +971-4-431 4570
Website : www.geoscience.ae E-mail : info@gtl.ae



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

Report No. : R1DX21-115558 - 115559
Request No. : Q1DX21-068749
Sender's Ref. No : NOT GIVEN
Project Name : INTERNAL QUALITY CHECKING
Client Name : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON)
Consultant : NO SPECIFIC CONSULTANT
Contractor : NO SPECIFIC CONTRACTOR
Address : DUBAI, U.A.E
Sampled By : NAHAS
Sampling Brought By : GTL'S REPRESENTATIVE



Date : 25/10/2021

Sample No : S1DX21-068749

Project No : IQC

Location : MACON
Layer : DOUBLE LAYER
Source : MACON
Sample Description : 10" THERMAL BLOCK - 110mm INSERT
Color / Class : NOT GIVEN
Work Size (mm) : 400x250x200
Unit Sampled From : NOT GIVEN
Sample Size : NOT GIVEN
Lot Size : NOT GIVEN
Lot No : 21410197
Bundle No : NOT GIVEN
Testing Date : 19/10/2021
Sampling Date / Time : 07/10/2021 / NOT GIVEN
Receiving Date : 19/10/2021

RESULT

| PARAMETER | UNIT | RESULT |
|--|----------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | % weight of dried material | 0.43 |

Tested On : 19/10/2021 - 24/10/2021
Sampling Report No : NOT GIVEN
Sampling Method : RANDOM
Sample Preparation : BS 1881 PART 124 : 2015 CLS. 5.5.2
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 2015 CLS. 12.1
ACID SOLUBLE SULPHATE : BS 1881 PART 124 2015 CLS. 12.2
Test Method variation : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE
INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT.
Tested By : HNK
Remarks : NONE



Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

Results relates only to the items tested

Reports shall not be reproduced (except in full) without the written approval from the laboratory

Form No: CH - 45

Issue: 01/01.08.2001

Rev.: 04/13.09.2008


© GEOSCIENCE TESTING LABORATORY

Page 1 of 1



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON NET DRY DENSITY OF MASONRY UNITS

| | | |
|----------------------|---|---|
| Report No. | : R1DX21-115557 |  |
| Request No. | : Q1DX21-068749 | |
| Sender's Ref. No. | : Not Given | Date : 18/10/2021 |
| Project Name | : Internal Quality checking | Sample No. : S1DX21-068749 |
| Client Name | : Mansoor Concrete Block Industry LLC (MACON) | Project No. : IQC |
| Address | : Dubai, U.A.E | |
| Consultant | : No Specific Consultant | |
| Contractor | : No Specific Contractor | |
| Sampled by | : Client Rep | Sampling Received Date : 07/10/2021 |
| Sample Brought in by | : Client Rep | Sampling Date : 07/10/2021 |
| Location | : Jabel Ali | Lot Size : Not Given |
| Source | : Mansoor Concrete Block Industry LLC (MACON) | Lot No. : 21410197 |
| Unit Sample From | : Factory Yard | Production Date : Not Provided |
| Sample Description | : Thermoblock Solid Normal Weight 110mm | Work size(mm) : 400x250x200mm |

Results

| Specimen No. | Net Dry Density (Kg/m ³) |
|--------------|--------------------------------------|
| 1 | 2090 |
| Average | 2090 |

| | |
|---------------------------|----------------------------|
| Test Date | : 17/10/2021- 18/10/2021 |
| Sampling Method | : Random |
| Sampling Report No. | : Not Provided |
| Test Specimen Preparation | : BS EN 772 : 2000 Part 16 |
| Test Method | : BS EN 772 : 2000 Part 13 |
| Test Method Variation | : None |
| Tested by | : LSS |
| Remarks | : None |

* Results relates only to the samples tested.

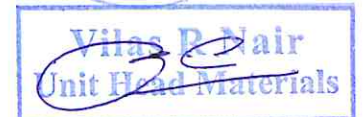
* Test reports shall not be reproduced (except in full) without the written approval from the laboratory.

Form No : MD/PC-155

Issue : 01/23.06.2008

Rev : 01/14.09.2008

Page 1 of 1

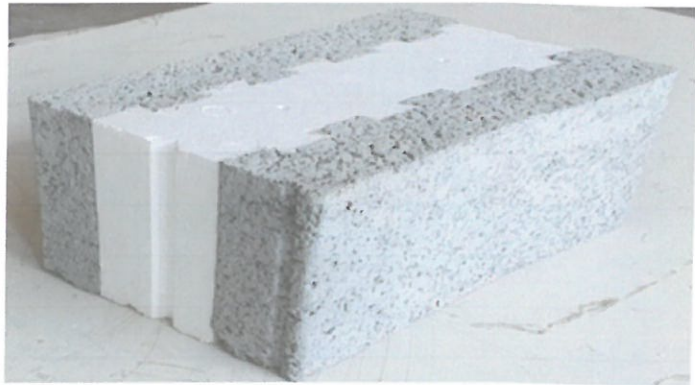


For GEOSCIENCE TESTING LABORATORY

REPORT ON
THERMAL TRANSMISSION PROPERTIES BY CALCULATION METHOD
ACCORDING TO BS EN ISO 6946

REFERENCE NO. : 587-2019
ISSUE DATE : 06/08/2019
CLIENT : MANSOOR CONCRETE BLOCK INDUSTRY LLC.
Normal Weight sandwich Concrete Masonry solid Blocks (400*250 *200)mm with110
PRODUCT : mm EPS insert
Normal Weight sandwich Concrete Masonry solid Blocks (400*250 *200)mm with110
PRODUCT DESCRIPTION : mm EPS insert
PRODUCT WEIGHT (kg) : 24
PRODUCT THICKNESS (m) : 0.25
(PERPENDICULAR TO HEAT FLOW
DIRECTION)

PRODUCT CONFIGURATION :



| Product's COMPONENTS | DENSITY [kg/m ³] | THERMAL CONDUCTIVITY [W/(m.K)] | CONDITION of TEST | | TEST REPORT / REFERENCE |
|----------------------|------------------------------|--------------------------------|-------------------|----|-------------------------|
| | | | % RH | °C | |
| Concrete | 2200 | 1.85 | -- | -- | DCL approved material |
| polystyrene | 26 | 0.0348 | | | DCL 100404313 |

| CALCULATION RESULTS | UPPER LIMIT | LOWER LIMIT | AVERAGE |
|---|-------------|-------------|---------|
| THERMAL RESISTANCE [m ² .K/W] | 3.237 | 3.237 | 3.237 |
| EQUIVALENT THERMAL CONDUCTIVITY [W/(m.K)] | | | 0.077 |

REMARKS :

ISSUED BY:

SAMEER DARWISH ALBOJOQ
PRINCIPAL FIELD STUDIES RESEARCHER

ON BEHALF OF :

ARIF HUSAIN AI MARZOOQI *
PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

* Electronic Document – No Signature Required

DATE: 06/08/2019

To: MANSOOR CONCRETE BLOCK INDUSTRY LLC.

TEL: 04 -8801801

FAX: 04 -8801802

SUBJECT: Thermal transmittance (U) value calculation

Reference is made to your application regarding the subject above, please note the following:

1. Thermal transmittance (U) value of a wall constructed using "Normal Weight sandwich Concrete Masonry solid Blocks (400*250 *200)mm with110 mm EPS insert is as follows:

- a) Wall configuration:

| Layer | Thickness [mm] | Thermal conductivity [W/m.K] | Thermal Resistance [m ² .K/W] |
|------------------|----------------|------------------------------|--|
| External surface | -- | -- | 0.04 |
| Plaster | 15 | 0.72 | 0.0208 |
| Block* | 250 | 0.077 | 3.24675 |
| Plaster | 15 | 0.72 | 0.0208 |
| Internal surface | -- | -- | 0.12 |
| TOTAL | 280 | -- | 3.44835 |

* See Report on Thermal Transmission Properties issued by DCL; Ref: 587-2019 dated on 06/8/2019

- b) Thermal transmittance (U-value)

| Description | U-value [W/(m ² .K)] |
|--|---------------------------------|
| Wall Thermal Transmittance (U = 1/R _t) | 0.29 |

Note:

1. This report represents submitted samples only.

REGARDS,
SAMEER DARWISH ALBOJOQ
PRINCIPAL FIELD STUDIES RESEARCHER

ON BEHALF OF: **ARIF HUSAIN AL MARZOOQI***
PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER
DUBAI CENTRAL LABORATORY

* Electronic Document – No Signature Required



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

Report No. : R1DX21-115558 - 115559
Request No. : Q1DX21-068749
Sender's Ref. No : NOT GIVEN
Project Name : INTERNAL QUALITY CHECKING
Client Name : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON)
Consultant : NO SPECIFIC CONSULTANT
Contractor : NO SPECIFIC CONTRACTOR
Address : DUBAI, U.A.E
Sampled By : NAHAS
Sampling Brought By : GTL'S REPRESENTATIVE



Date : 25/10/2021

Sample No : S1DX21-068749

Project No : IQC

Location : MACON
Layer : DOUBLE LAYER
Source : MACON
Sample Description : 10" THERMAL BLOCK - 110mm INSERT
Color / Class : NOT GIVEN
Work Size (mm) : 400x250x200
Unit Sampled From : NOT GIVEN
Sample Size : NOT GIVEN
Lot Size : NOT GIVEN
Lot No : 21410197
Bundle No : NOT GIVEN
Testing Date : 19/10/2021
Sampling Date / Time : 07/10/2021 / NOT GIVEN
Receiving Date : 19/10/2021

RESULT

| PARAMETER | UNIT | RESULT |
|--|----------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | % weight of dried material | 0.43 |

Tested On : 19/10/2021 - 24/10/2021
Sampling Report No : NOT GIVEN
Sampling Method : RANDOM
Sample Preparation : BS 1881 PART 124 : 2015 CLS. 5.5.2
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 2015 CLS. 12.1
ACID SOLUBLE SULPHATE : BS 1881 PART 124 2015 CLS. 12.2
Test Method variation : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE
INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT.
Tested By : HNK
Remarks : NONE



Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

Results relates only to the items tested

Reports shall not be reproduced (except in full) without the written approval from the laboratory

Form No: CH - 45

Issue: 01/01.08.2001

Rev.: 04/13.09.2008

© GEOSCIENCE TESTING LABORATORY

Page 1 of 1



**THERMAL BLOCK
400 X 300 X 200 MM
60 MM INSERT**

**- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH**

Certificate of Compliance

Certificate No. : BBCE-2019-002913
Certificate Date: 30/04/2019
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 19410153
Sample Description : Thermoblock Hollow Normal Weight 60 Mm Insert
Lot Size: 9936 **Color :**
Work size: 400 L1 x 0 L2 x 300 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|--|---------------|------|
| AJ1026 | Regular | EMSU0002 COMPRESSIVE STRENGTH OF HOLLOW MASONRY BLOCKS | R1DX19-073964 | Pass |
| AJ1026 | Regular | EMSU0005 DIMENSION OF HOLLOW MASONRY BLOCKS | R1DX19-073965 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: AbuBaker Kutty

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2019-002913 and Verification Code 316619 , or alternatively scan the QR code.

هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2019-002913 وكود التأكد 316619 ، أو بدلا من ذلك مسح QR Code



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : 073964 Date : 27/04/2019
Request No. : 048860 Sample No. : 048860
Senders Ref. : AJ1026 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 23/04/2019
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 23/04/2019
Location : Jabel Ali Sample Received Time : 14:00
Sampled by : AbuBaker Kutty Unit Sampled from : Block Factory
Sample Brought by : AbuBaker Kutty Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 19410153
Sample Description : Thermoblock Hollow Normal Weight 60mm Insert Lot Size : 9936
Work Size of Blocks : L 400 W 300 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 6 | N.G | 16/04/2019 | 8.3 |
| 2 | 36 | N.G | 16/04/2019 | 7.9 |
| 3 | 72 | N.G | 16/04/2019 | 8.8 |
| 4 | 102 | N.G | 16/04/2019 | 8.1 |
| 5 | 132 | N.G | 16/04/2019 | 8.0 |
| 6 | 174 | N.G | 16/04/2019 | 7.8 |
| 7 | 204 | N.G | 16/04/2019 | 8.0 |
| 8 | 222 | N.G | 16/04/2019 | 8.4 |
| 9 | 252 | N.G | 16/04/2019 | 8.2 |
| 10 | 276 | N.G | 16/04/2019 | 7.8 |

Compressive Strength (N/mm²) 8.1 Standard Deviation 0.3

Certificate No. : Not Given
Testing Date : 27/04/2019
Sampling Method : WI -IC - 1002
Sampling Report No : 2019-002913
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1954
Test Method Variation : None
Tested By : AMK/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17
Page 1 of 1

Issue : 02 / 13.09.2008



Rev. : 01/17.02.2010

Sunny Paily
Technical Manager
(Civil)

For GEOSCIENCE TESTING LABORATORY

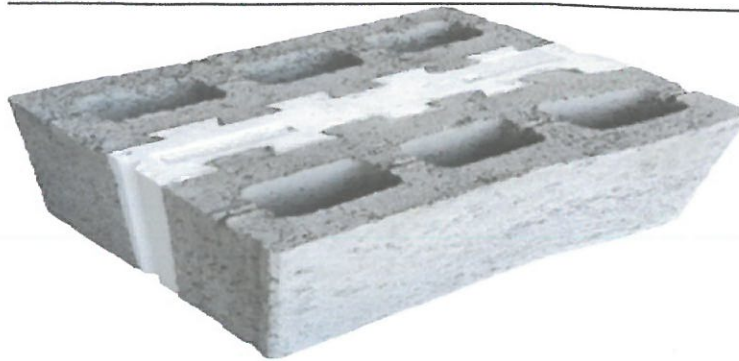


Dubai: P.O. Box : 61670, Tel : +971-4-431 4690, Fax : +971-4-431 4570
Website : www.geoscience.ae E-mail : info@gtl.ae

REPORT ON
THERMAL TRANSMISSION PROPERTIES BY CALCULATION METHOD
ACCORDING TO BS EN ISO 6946

REFERENCE NO. : 589-2019
ISSUE DATE : 06/08/2019
CLIENT : MANSOOR CONCRETE BLOCK INDUSTRY LLC.
Normal Weight sandwich hollow concrete Blocks 400*300 *200)mm with 60mm EPS
PRODUCT : insert
Normal Weight sandwich hollow concrete Blocks 400*300 *200)mm with 60mm EPS
PRODUCT DESCRIPTION : insert
PRODUCT WEIGHT (kg) : 31
PRODUCT THICKNESS (m)
(PERPENDICULAR TO HEAT FLOW
DIRECTION) : 0.3

PRODUCT CONFIGURATION :



| Product's COMPONENTS | DENSITY [kg/m ³] | THERMAL CONDUCTIVITY [W/(m.K)] | CONDITION of TEST | | TEST REPORT / REFERENCE |
|----------------------|------------------------------|--------------------------------|-------------------|----|-------------------------|
| | | | % RH | °C | |
| Concrete | 2200 | 1.85 | -- | -- | DCL approved material |
| polystyrene | 29 | 0.0337 | | | DCL 100404414 |

| CALCULATION RESULTS | UPPER LIMIT | LOWER LIMIT | AVERAGE |
|---|-------------|-------------|---------|
| THERMAL RESISTANCE [m ² .K/W] | 2.203 | 2.109 | 2.156 |
| EQUIVALENT THERMAL CONDUCTIVITY [W/(m.K)] | | | 0.139 |

REMARKS :

ISSUED BY:

SAMEER DARWISH ALBOJOQ
PRINCIPAL FIELD STUDIES RESEARCHER

ON BEHALF OF :

ARIF HUSAIN AJ MARZOOQI *
PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

* Electronic Document – No Signature Required

DATE: 06/08/2019

To: MANSOOR CONCRETE BLOCK INDUSTRY LLC.

TEL: 04 -8801801

FAX: 04 -8801802

SUBJECT: Thermal transmittance (U) value calculation

Reference is made to your application regarding the subject above, please note the following:

1. Thermal transmittance (U) value of a wall constructed using "Normal Weight sandwich hollow Blocks 400*300 *200)mm with 60 EPS insert is as follows:

a) Wall configuration:

| Layer | Thickness [mm] | Thermal conductivity [W/m.K] | Thermal Resistance [m ² .K/W] |
|------------------|----------------|------------------------------|--|
| External surface | -- | -- | 0.04 |
| Plaster | 15 | 0.72 | 0.0208 |
| Block* | 300 | 0.139 | 2.15827 |
| Plaster | 15 | 0.72 | 0.0208 |
| Internal surface | -- | -- | 0.12 |
| TOTAL | 330 | -- | 2.35987 |

* See Report on Thermal Transmission Properties issued by DCL; Ref: 589 -2019 dated on 06/8/2019

b) Thermal transmittance (U-value)

| Description | U-value [W/(m ² .K)] |
|--|---------------------------------|
| Wall Thermal Transmittance ($U = 1/R_T$) | 0.42 |

Note:

1. This report represents submitted samples only.

REGARDS,

SAMEER DARWISH ALBOJOQ

PRINCIPAL FIELD STUDIES RESEARCHER

ON BEHALF OF: ARIF HUSAIN AL MARZOOQI*

PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER



DUBAI CENTRAL LABORATORY

** Electronic Document – No Signature Required*



**THERMAL BLOCKS
400X300X200MM
110MM INSERT**

- **DM CERTIFICATE OF COMPLAINE**
- **TEST REPORT-COMPRESSIVE STRENGTH**

| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF COMPRESSIVE STRENGTH OF MASONRY UNIT | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|---|---|---------------------------------------|--------------------|
| Report No: | 384734 | Request No: | EMTX-2021-1092472 |
| Project No: | BA-28 | Report Date: | 27/12/2021 11:19AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | MACON YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | THERMOBLOCK SOLID NORMAL WEIGHT 110MM INSERT | | |
| Product Name: * | 400X300X200MM THERMO SOLID NORMAL WEIGHT 110 INSERT | | |
| Sampling Date/Time: * | 15/12/2021 12:40AM | Lot/Batch/Coil/Heat No. * | 21410413 |
| Receiving Date/Time: | 23/12/2021 12:11PM | Lot Size: * | 100 pieces |
| Sample Size: | 15.00 pieces | Sender No: | LL0526 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X300X200 | | | |



TEST RESULTS

| PARAMETER | RESULTS | | | | |
|---|--|------|-------------------------------|--------------------|------|
| PRODUCTION DATE * | NG | | | | |
| TESTING SIZE (mm) | 400 x 300 x 200 | | | | |
| SURFACE PREPARATION | NO SURFACE PREPARATION | | | | |
| PRODUCT TYPE * | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| FAILURE LOAD (kN) | 1781 | 1821 | 2293 | 1347 | 1359 |
| COMPRESSIVE STRENGTH (N/mm ²) | 14.9 | 15.2 | 19.2 | 11.3 | 11.4 |
| SPECIMEN NO | 6 | | | | |
| FAILURE LOAD (kN) | 1299 | | | | |
| COMPRESSIVE STRENGTH (N/mm ²) | 10.9 | | | | |
| AVE. COMPRESSIVE STRENGTH | 13.8 | | | | |
| STANDARD DEVIATION | 3.2 | | | | |
| COEFFICIENT OF VARIATION (%) | 23.2 | | | | |
| SPECIFICATION LIMIT * | NOT GIVEN | | | | |
| Sampled By: | AUDITOR REPRESENTATIVE | | Tested By: | JVBRIONES | |
| Sampled Brought By: | CLIENT REPRESENTATIVE | | Testing Date: | 23/12/2021 12:11PM | |
| Sampling Method: | DCL-IC-99 | | Sampling Report No: | NA | |
| Test Method: | BS EN 772-1 : 2011 ; DMS 001 | | Test Method Variation: | NIL | |
| Remarks: | - CUSTOMER PERFORMED SAMPLING AND PROVIDED THE SAMPLE; THE RESULTS APPLY ONLY TO THE SAMPLE AS RECEIVED AND TESTED. NO SEPARATION FOUND BETWEEN THE CONCRETE AND POLYSTYRENE | | | | |

PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DIMENSION OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

**CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT**

| | | | |
|---|---|---------------------------------------|--------------------|
| Report No: | 384735 | Request No: | EMTX-2021-1092472 |
| Project No: | BA-28 | Report Date: | 27/12/2021 11:19AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | MACON YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | THERMOBLOCK SOLID NORMAL WEIGHT 110MM INSERT | | |
| Product Name: * | 400X300X200MM THERMO SOLID NORMAL WEIGHT 110 INSERT | | |
| Sampling Date/Time: * | 15/12/2021 12:40AM | Lot/Batch/Coil/Heat No.* | 21410413 |
| Receiving Date/Time: | 23/12/2021 12:10PM | Lot Size: * | 100 pieces |
| Sample Size: | 15.00 pieces | Sender No: | LL0526 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X300X200 | | | |

TEST RESULTS



| PARAMETER | RESULTS | | | | |
|----------------------------|--|-------|-------------------------------|--------------------|-------|
| NOMINAL SIZE, mm * | 400 x 300 x 200 | | | | |
| PRODUCTION DATE * | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| LENGTH (mm) | 400.0 | 400.0 | 399.5 | 400.0 | 399.5 |
| WIDTH (mm) | 299.0 | 300.0 | 299.0 | 299.0 | 299.0 |
| HEIGHT (mm) | 202.0 | 202.0 | 201.0 | 202.0 | 201.0 |
| SPECIMEN NO | 6 | | | | |
| LENGTH (mm) | 400.0 | | | | |
| WIDTH (mm) | 299.0 | | | | |
| HEIGHT (mm) | 201.0 | | | | |
| SPECIFICATION LIMIT * | NOT GIVEN | | | | |
| Sampled By: | AUDITOR REPRESENTATIVE | | Tested By: | JVBRIONES | |
| Sampled Brought By: | CLIENT REPRESENTATIVE | | Testing Date: | 23/12/2021 12:10PM | |
| Sampling Method: | DCL-IC-99 | | Sampling Report No: | NA | |
| Test Method: | BS EN 772-16 : 2011 | | Test Method Variation: | NIL | |
| Remarks: | - CUSTOMER PERFORMED SAMPLING AND PROVIDED THE SAMPLE; THE RESULTS APPLY ONLY TO THE SAMPLE AS RECEIVED AND TESTED | | | | |

Disclaimer : * Information is supplied by the customer and Laboratory is not responsible for this data.

PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT SULPHATE CONTENT OF HARDENED CONCRETE | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

**CONSTRUCTION MATERIAL LABORATORY SECTION
CHEMICAL ANALYSIS IN CONSTRUCTION MATERIAL UNIT**

| | | | |
|---|---|---------------------------------------|--------------------|
| Report No: | 385473 | Request No: | EMTX-2021-1092472 |
| Project No: | BA-28 | Report Date: | 29/12/2021 09:57AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: * | MACON YARD | | |
| Source: * | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: * | THERMOBLOCK SOLID NORMAL WEIGHT 110MM INSERT | | |
| Product Name: * | 400X300X200MM THERMO SOLID NORMAL WEIGHT 110 INSERT | | |
| Sampling Date/Time: * | 15/12/2021 12:40AM | Lot/Batch/Coil/Heat No.* | 21410413 |
| Receiving Date/Time: | 26/12/2021 01:23PM | Lot Size: * | 100 pieces |
| Sample Size: | 15.00 pieces | Sender No: | LL0526 |
| Material/Mix Type: * | NA | Laying Date/Production Date: * | NA |
| Nominal Size / Working Block Size (mm) : 400X300X200 | | | |

TEST RESULTS

| PARAMETER | RESULTS | | |
|--|--|-------------------------------|--------------------|
| AVERAGE SULPHATE AS SO ₃ (%) BY MASS OF HARDENED CONCRETE (CONC. BLOCK) | 0.3 | | |
| Sampled By: | AUDITOR REPRESENTATIVE | Tested By: | AKALLUVETTY |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 26/12/2021 01:23PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | NA |
| Test Method: | BS 1881-124 : 2015 cl. 12.2 ADD-06(2002) | Test Method Variation: | NIL |
| Remarks: | - CUSTOMER PERFORMED SAMPLING AND PROVIDED THE SAMPLE; THE RESULTS APPLY ONLY TO THE SAMPLE AS RECEIVED AND TESTED | | |

Disclaimer : * Information is supplied by the customer and Laboratory is not responsible for this data.

***** END OF REPORT *****

This report is computer approved and authorized by Head of Unit and does not require any signature.



LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3027216 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 02/05/2021 | Rev No. : 3 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

REPORT ON
THERMAL TRANSMISSION PROPERTIES BY CALCULATION METHOD
ACCORDING TO BS EN ISO 6946

REFERENCE NO. : 688-2021
ISSUE DATE : 19/12/2021
CLIENT : Mansoor Concrete Block Industry LLC (MACON)
PRODUCT : Normal Weight Concrete Sandwich solid Masonry Blocks (400*300*200)mm with 110 mm Expanded polystyrene insert
PRODUCT DESCRIPTION : Normal Weight Concrete Sandwich solid Masonry Blocks (400*300*200)mm with 110 mm Expanded polystyrene insert
PRODUCT WEIGHT (kg) : 28
PRODUCT THICKNESS (m) : 0.3
(PERPENDICULAR TO HEAT FLOW DIRECTION)

PRODUCT CONFIGURATION :



| Product's COMPONENTS | DENSITY [kg/m ³] | THERMAL CONDUCTIVITY [W/(m.K)] | CONDITION of TEST | | TEST REPORT / REFERENCE |
|----------------------|------------------------------|--------------------------------|-------------------|------|--|
| | | | % RH | °C | |
| Concrete | 2130 | 1.85 | -- | -- | DCL approved material |
| Polystyrene | 25 | 0.03593 | 60±5 | 35±2 | (DCL) report no.(258080) insert manufactured by (styrene insulation) |

| CALCULATION RESULTS | UPPER LIMIT | LOWER LIMIT | AVERAGE |
|---|-------------|-------------|---------|
| THERMAL RESISTANCE [m ² .K/W] | 3.164 | 3.164 | 3.164 |
| EQUIVALENT THERMAL CONDUCTIVITY [W/(m.K)] | | | 0.095 |

REMARKS :

ISSUED BY:

Sameer Darwish ALBojoq
principal field studies researcher

ON BEHALF OF :

ARIF HUSAIN AI MARZOOQI *
PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

* Electronic Document – No Signature Required

DATE: 19/12/2021

To: Mansoor Concrete Block Industry LLC (MACON)

TEL: 048801801

FAX: 048801802

SUBJECT: Thermal transmittance (U) value calculation

Reference is made to your application regarding the subject above, please note the following:

Thermal transmittance (U) value of a wall constructed using 300mm thick. "Sandwich solid Masonry Blocks "as follows

a) Wall configuration:

| Layer | Thickness [mm] | Thermal conductivity [W/m.K] | Thermal Resistance [m ² .K/W] |
|------------------|----------------|------------------------------|--|
| External surface | -- | -- | 0.04 |
| Plaster | 15 | 0.72 | 0.0208 |
| Block* | 300 | 0.095 | 3.15789 |
| Plaster | 15 | 0.72 | 0.0208 |
| Internal surface | -- | -- | 0.12 |
| TOTAL | 330 | -- | 3.35949 |

* See Report on Thermal Transmission Properties issued by DCL; Ref: TT-688-2021 dated on 19/12/2021

b) Thermal transmittance (U-value)

| Description | U-value [W/(m ² .K)] |
|--|---------------------------------|
| Wall Thermal Transmittance (U = 1/R _T) | 0.30 |

Note:

1. This report represents submitted samples only.

REGARDS,

SAMEER DARWISH ALBOJOQ

PRINCIPAL FIELD STUDIES RESEARCHER,

ON BEHALF OF: ARIF HUSAIN AL MARZOOQI*

PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

DUBAI CENTRAL LABORATORY

** Electronic Document – No Signature Required*



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

| | | | |
|--------------------|--|----------------------|--------------------------|
| REPORT NO. | : R1DX21-131581 - 131582 | DATE | : 09/12/2021 |
| REQUEST NO. | : Q1DX21-078379 | SAMPLE NO. | : S1DX21-078379 |
| SENDER'S REF. | : NOT GIVEN | PROJECT NO. | : IQC |
| PROJECT NAME | : INTERNAL QUALITY CHECKING | | |
| CLIENT NAME | : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| CONSULTANT | : NO SPECIFIC CONSULTANT | | |
| CONTRACTOR | : NO SPECIFIC CONTRACTOR | | |
| ADDRESS | : DUBAI, UAE | | |
| SAMPLED BY | : NAHAS REPRESENTATIVE | | |
| SAMPLE BROUGHT BY | : GTL'S REPRESENTATIVE | | |
| LOCATION | : MACON | SAMPLE SIZE | : NOT GIVEN |
| LAYER | : SINGLE | LOT SIZE | : NOT GIVEN |
| SOURCE | : MACON | LOT NO. | : NOT GIVEN |
| SAMPLE DESCRIPTION | : 12" THERMAL 110-EPS NORMAL WEIGHT CONCRETE BLOCK | BUNDLE NO. | : NOT APPLICABLE |
| COLOR/CLASS | : NOT GIVEN | TESTING DATE | : 05/12/2021 |
| WORK SIZE (mm) | : 400 x 300 x 200 | SAMPLING DATE / TIME | : 30/11/2021 / NOT GIVEN |
| UNIT SAMPLE FROM | : NOT GIVEN | RECEIVING DATE | : 05/12/2021 |

RESULT

| PARAMETER | UNIT | CLIENT'S SPECIFICATION | RESULT |
|--|----------------------------|------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | < 0.05 | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | | < 0.5 | 0.43 |

| | |
|-----------------------|--|
| TESTED ON | : 05/12/2021 - 08/12/2021 |
| SAMPLING REPORT NO | : NOT GIVEN |
| SAMPLING METHOD | : RANDOM |
| SAMPLE PREPARATION | : BS 1881 PART 124 : 2015 CLS. 5.5.2 |
| TEST METHOD | : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015 CLS. 12.1 : ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015 CLS. 12.2 |
| TEST METHOD VARIATION | : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT. |
| TESTED BY | : PGN |
| REMARKS | : THE TESTED SAMPLE MEETS THE SPECIFICATION LIMITS SUBMITTED BY THE CLIENT WITH RESPECT TO THE ABOVE PARAMETERS. |



Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai



*Results relates only to the items tested.
*Reports shall not be reproduced (except in full) without written approval of the Laboratory.
Form No.: CH-45 Issue : 01/ 01.08.2001 Rev. : 04 / 13.09.2008
Page 1 of 1

For GEOSCIENCE TESTING LABORATORY



**THERMAL BLOCKS
400X300X200MM
160MM INSERT**

- **DM CERTIFICATE OF COMPLAINT**
- **TEST REPORT-COMPRESSIVE STRENGTH**

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT CHLORIDE CONTENT OF CONCRETE BLOCKS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
CHEMICAL ANALYSIS IN CONSTRUCTIONA MATERIAL UNIT

| | | | |
|-----------------------------|--|-------------------------------------|--------------------|
| Report No: | 198731 | Request No: | EMTX-2020-1006254 |
| Project No: | BA-28 | Report Date: | 25/10/2020 10:00AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | THERMOBLOCK SOLID NORMAL WEIGHT 160 MM INSERT. | | |
| Sampling Date/Time: | 05/10/2020 12:00PM | Lot Number: | 20410006 |
| Receiving Date/Time: | 20/10/2020 08:37AM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0501 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400X300X200

TEST RESULTS

| PARAMETER | RESULTS |
|---|---------|
| AVERAGE CHLORIDE % BY MASS OF HARDENED CONCRETE | 0.02 |
| Colour | NA |
| Production date | NA |

| | | | |
|----------------------------|-----------------------|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | REDASH |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 20/10/2020 08:37AM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS 1881-124 : 2015 | Test Method Variation: | NIL |

Remarks: - SAMPLING IS PERFORMED BY THE CUSTOMER

To verify this document please go to :

<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>

Enter Document ID: **EMTX-2020-1006254** and Verification Code: **DJYN**

or Scan the QR code below.



***** END OF REPORT *****

This report is computer approved and authorized by Head of Unit and does not require any signature.





LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT SULPHATE CONTENT OF HARDENED CONCRETE | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

**CONSTRUCTION MATERIAL LABORATORY SECTION
CHEMICAL ANALYSIS IN CONSTRUCTIONA MATERIAL UNIT**

| | | | |
|---|--|-------------------------------------|--------------------|
| Report No: | 198733 | Request No: | EMTX-2020-1006254 |
| Project No: | BA-28 | Report Date: | 25/10/2020 10:01AM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | THERMOBLOCK SOLID NORMAL WEIGHT 160 MM INSERT. | | |
| Sampling Date/Time: | 05/10/2020 12:00PM | Lot Number: | 20410006 |
| Receiving Date/Time: | 20/10/2020 08:37AM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0501 |
| Material/Mix Type: | | Laying Date/Production Date: | |
| Nominal Size / Working Block Size L * T * H (mm) : 400X300X200 | | | |

TEST RESULTS

| PARAMETER | RESULTS | | |
|--|--|-------------------------------|--------------------|
| AVERAGE SULPHATE AS SO3 (%) BY MASS OF HARDENED CONCRETE (CONC. BLOCK) | 0.4 | | |
| Colour | NA | | |
| Sampled By: | LINO M. LINGAO | Tested By: | REDASH |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 20/10/2020 08:37AM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS 1881-124 : 2015 cl. 12.2 ADD-06(2002) | Test Method Variation: | NIL |
| Remarks: | - SAMPLING IS PERFORMED BY THE CUSTOMER | | |

To verify this document please go to :

<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>

Enter Document ID: **EMTX-2020-1006254** and Verification Code: **DJYN**

or Scan the QR code below.



***** END OF REPORT *****

This report is computer approved and authorized by Head of Unit and does not require any signature.





LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DIMENSION OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

**CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT**

| | | | |
|-----------------------------|--|-------------------------------------|--------------------|
| Report No: | 198191 | Request No: | EMTX-2020-1006254 |
| Project No: | BA-28 | Report Date: | 22/10/2020 12:20PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | THERMOBLOCK SOLID NORMAL WEIGHT 160 MM INSERT. | | |
| Sampling Date/Time: | 05/10/2020 12:00PM | Lot Number: | 20410006 |
| Receiving Date/Time: | 19/10/2020 04:18PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0501 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400X300X200

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|------------------|-------------|-------|-------|-------|-------|
| NOMINAL SIZE, mm | 400*300*200 | | | | |
| PRODUCTION DATE | NG | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| LENGTH (mm) | 399.5 | 399.5 | 399.0 | 399.5 | 399.5 |
| WIDTH (mm) | 300.0 | 300.5 | 300.0 | 300.0 | 299.5 |
| HEIGHT (mm) | 201.5 | 201.0 | 200.5 | 201.0 | 201.5 |
| SPECIMEN NO | 6 | | | | |
| LENGTH (mm) | 399.5 | | | | |
| WIDTH (mm) | 300.0 | | | | |
| HEIGHT (mm) | 201.0 | | | | |

| | | | |
|----------------------------|-----------------------|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | EJMILLANA |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 19/10/2020 04:18PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS EN 772-16 : 2011 | Test Method Variation: | |

Remarks: - Sampling is performed by the customer

To verify this document please go to :

<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>

Enter Document ID: **EMTX-2020-1006254** and Verification Code: **DJYN**



or Scan the QR code below.



PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF COMPRESSIVE STRENGTH OF MASONRY UNIT | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|-----------------------------|--|-------------------------------------|--------------------|
| Report No: | 198194 | Request No: | EMTX-2020-1006254 |
| Project No: | BA-28 | Report Date: | 22/10/2020 12:21PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | THERMOBLOCK SOLID NORMAL WEIGHT 160 MM INSERT. | | |
| Sampling Date/Time: | 05/10/2020 12:00PM | Lot Number: | 20410006 |
| Receiving Date/Time: | 19/10/2020 04:19PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0501 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400X300X200

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|---|-------------------------------|------|------|------|-----|
| PRODUCTION DATE | NG | | | | |
| NOMINAL SIZE | 400 X 300 X 200 | | | | |
| TESTING SIZE (mm) | 400 X 300 X 200 | | | | |
| SURFACE PREPARATION | NO SURFACE PREPARATION | | | | |
| CONDITIONING METHOD | AS PER DMS 1 : PART 5 ANNEX A | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| FAILURE LOAD (kN) | 997 | 1127 | 1230 | 1281 | 768 |
| COMPRESSIVE STRENGTH (N/mm ²) | 8.3 | 9.4 | 10.3 | 10.7 | 6.4 |
| SPECIMEN NO | 6 | | | | |
| FAILURE LOAD (kN) | 1342 | | | | |
| COMPRESSIVE STRENGTH (N/mm ²) | 11.2 | | | | |
| AVE. COMPRESSIVE STRENGTH | 9.4 | | | | |
| STANDARD DEVIATION | 1.8 | | | | |
| COEFFICIENT OF VARIATION (%) | 19.1 | | | | |

| | | | |
|----------------------------|------------------------------|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | EJMILLANA |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 19/10/2020 04:19PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS EN 772-1 : 2011 ; DMS 001 | Test Method Variation: | NIL |

Remarks: - Sampling is performed by the customer / NO SEPARATION FOUND BETWEEN CONCRETE & POLYSTYRENE

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

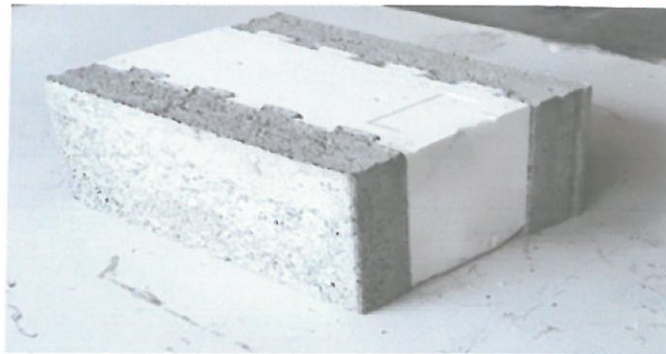
This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

REPORT ON
THERMAL TRANSMISSION PROPERTIES BY CALCULATION METHOD
ACCORDING TO BS EN ISO 6946

REFERENCE NO. : 588-2019
ISSUE DATE : 06/08/2019
CLIENT : MANSOOR CONCRETE BLOCK INDUSTRY LLC.
Normal Weight sandwich Concrete Masonry solid Blocks 400*300 *200)mm with160
PRODUCT : mm EPS insert
Normal Weight sandwich Concrete Masonry solid Blocks 400*300 *200)mm with160
PRODUCT DESCRIPTION : mm EPS insert
PRODUCT WEIGHT (kg) : 26
PRODUCT THICKNESS (m) : 0.3
(PERPENDICULAR TO HEAT FLOW DIRECTION)

PRODUCT CONFIGURATION :



| Product's COMPONENTS | DENSITY [kg/m ³] | THERMAL CONDUCTIVITY [W/(m.K)] | CONDITION of TEST | | TEST REPORT / REFERENCE |
|----------------------|------------------------------|--------------------------------|-------------------|----|-------------------------|
| | | | % RH | °C | |
| Concrete | 2200 | 1.85 | -- | -- | DCL approved material |
| polystyrene | 25 | 0.0353 | | | DCL100404176 |

| CALCULATION RESULTS | UPPER LIMIT | LOWER LIMIT | AVERAGE |
|---|-------------|-------------|---------|
| THERMAL RESISTANCE [m ² .K/W] | 4.608 | 4.608 | 4.608 |
| EQUIVALENT THERMAL CONDUCTIVITY [W/(m.K)] | | | 0.065 |

REMARKS :

ISSUED BY:

SAMEER DARWISH ALBOJOQ
PRINCIPAL FIELD STUDIES RESEARCHER

ON BEHALF OF :

ARIF HUSAIN AI MARZOOQI *
PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

* Electronic Document – No Signature Required

DATE: 06/08/2019

To: MANSOOR CONCRETE BLOCK INDUSTRY LLC.

TEL: 04 -8801801

FAX: 04 -8801802

SUBJECT: Thermal transmittance (U) value calculation

Reference is made to your application regarding the subject above, please note the following:

1. Thermal transmittance (U) value of a wall constructed using "Normal Weight sandwich Concrete Masonry solid Blocks 400*300 *200)mm with 160mm EPS insert is as follows:

- a) Wall configuration:

| Layer | Thickness [mm] | Thermal conductivity [W/m.K] | Thermal Resistance [m ² .K/W] |
|------------------|----------------|------------------------------|--|
| External surface | -- | -- | 0.04 |
| Plaster | 15 | 0.72 | 0.0208 |
| Block* | 300 | 0.065 | 4.61538 |
| Plaster | 15 | 0.72 | 0.0208 |
| Internal surface | -- | -- | 0.12 |
| TOTAL | 330 | -- | 4.81698 |

* See Report on Thermal Transmission Properties issued by DCL; Ref: 588 -2019 dated on 06/8/2019

- b) Thermal transmittance (U-value)

| Description | U-value [W/(m ² .K)] |
|--|---------------------------------|
| Wall Thermal Transmittance ($U = 1/R_T$) | 0.21 |

Note:

1. This report represents submitted samples only.

REGARDS,

SAMEER DARWISH ALBOJOQ

PRINCIPAL FIELD STUDIES RESEARCHER

ON BEHALF OF : ARIF HUSAIN AL MARZOOQI*

PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER



DUBAI CENTRAL LABORATORY

** Electronic Document – No Signature Required*

Ma Con

**LIGHT WEIGHT HOLLOW BLOCK
400 X 100 X 200 MM**

**- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH**

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DIMENSION OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|---|---|-------------------------------------|--------------------|
| Report No: | 197804 | Request No: | EMTX-2020-1006168 |
| Project No: | BA-28 | Report Date: | 21/10/2020 07:47PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | Factory Yard | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | MASONRY HOLLOW LIGHT WEIGHT CONCRETE BLOCK | | |
| Sampling Date/Time: | 05/10/2020 11:00AM | Lot Number: | 20410195 |
| Receiving Date/Time: | 19/10/2020 12:29PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0499 |
| Material/Mix Type: | | Laying Date/Production Date: | |
| Nominal Size / Working Block Size L * T * H (mm) : 400x100x200 | | | |



TEST RESULTS

| PARAMETER | RESULTS | | | | |
|----------------------------|-----------------------|-------|-------------------------------|--------------------|-------|
| NOMINAL SIZE | 400 X 100 X 200 | | | | |
| PRODUCTION DATE | 08/09/2020 | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| LENGTH (mm) | 400.5 | 400.0 | 400.5 | 400.5 | 401.0 |
| WIDTH (mm) | 99.0 | 98.0 | 98.5 | 99.5 | 99.5 |
| HEIGHT (mm) | 203.0 | 200.0 | 201.0 | 201.0 | 201.5 |
| SHELL THICKNESS (mm) | 33.0 | 33.0 | 32.0 | 33.0 | 33.0 |
| WEB THICKNESS (mm) | 32.0 | 29.5 | 30.0 | 31.5 | 30.0 |
| DEPTH OF HOLES (mm) | 190.5 | 188.0 | 188.5 | 187.5 | 188.5 |
| SPECIMEN NO | 6 | | | | |
| LENGTH (mm) | 401.0 | | | | |
| WIDTH (mm) | 100.0 | | | | |
| HEIGHT (mm) | 200.5 | | | | |
| SHELL THICKNESS (mm) | 33.0 | | | | |
| WEB THICKNESS (mm) | 30.0 | | | | |
| DEPTH OF HOLES (mm) | 188.0 | | | | |
| Sampled By: | LINO M. LINGAO | | Tested By: | EJMILLANA | |
| Sampled Brought By: | CLIENT REPRESENTATIVE | | Testing Date: | 19/10/2020 12:29PM | |
| Sampling Method: | DCL-IC-99 | | Sampling Report No: | | |
| Test Method: | BS EN 772-16 : 2011 | | Test Method Variation: | NIL | |

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF COMPRESSIVE STRENGTH OF MASONRY UNIT | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|---|---|-------------------------------------|--------------------|
| Report No: | 197805 | Request No: | EMTX-2020-1006168 |
| Project No: | BA-28 | Report Date: | 21/10/2020 07:48PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | Factory Yard | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | MASONRY HOLLOW LIGHT WEIGHT CONCRETE BLOCK | | |
| Sampling Date/Time: | 05/10/2020 11:00AM | Lot Number: | 20410195 |
| Receiving Date/Time: | 19/10/2020 12:29PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0499 |
| Material/Mix Type: | | Laying Date/Production Date: | |
| Nominal Size / Working Block Size L * T * H (mm) : 400x100x200 | | | |



TEST RESULTS

| PARAMETER | RESULTS | | | | |
|---|---|-----|-------------------------------|--------------------|-----|
| PRODUCTION DATE | 08/09/2020 | | | | |
| NOMINAL SIZE | 400 X 100 X 200 | | | | |
| TESTING SIZE (mm) | 400 X 100 X 200 | | | | |
| SURFACE PREPARATION | NO SURFACE PREPARATION | | | | |
| CONDITIONING METHOD | AS PER DMS 1 PART 1-ANNEX A | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| FAILURE LOAD (kN) | 246 | 179 | 244 | 240 | 273 |
| COMPRESSIVE STRENGTH (N/mm ²) | 6.2 | 4.6 | 6.2 | 6.0 | 6.8 |
| SPECIMEN NO | 6 | | | | |
| FAILURE LOAD (kN) | 223 | | | | |
| COMPRESSIVE STRENGTH (N/mm ²) | 5.6 | | | | |
| AVE. COMPRESSIVE STRENGTH | 5.9 | | | | |
| STANDARD DEVIATION | 0.7 | | | | |
| COEFFICIENT OF VARIATION (%) | 11.9 | | | | |
| Sampled By: | LINO M. LINGAO | | Tested By: | EJMILLANA | |
| Sampled Brought By: | CLIENT REPRESENTATIVE | | Testing Date: | 19/10/2020 12:29PM | |
| Sampling Method: | DCL-IC-99 | | Sampling Report No: | | |
| Test Method: | BS EN 772-1 : 2011 ; DMS 001 | | Test Method Variation: | NIL | |
| Remarks: | - Sampling is performed by the customer | | | | |

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF NET DRY DENSITY OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

**CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT**

| | | | |
|-----------------------------|---|-------------------------------------|--------------------|
| Report No: | 199525 | Request No: | EMTX-2020-1006168 |
| Project No: | BA-28 | Report Date: | 25/10/2020 05:44PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | Factory Yard | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | MASONRY HOLLOW LIGHT WEIGHT CONCRETE BLOCK | | |
| Sampling Date/Time: | 05/10/2020 11:00AM | Lot Number: | 20410195 |
| Receiving Date/Time: | 19/10/2020 12:29PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0499 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400x100x200

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|--------------------------------------|-----------------|------|------|------|------|
| NOMINAL SIZE | 400 x 100 x 200 | | | | |
| TESTING SIZE | 400 x 100 x 200 | | | | |
| SPECIMEN NO | 7 | 8 | 9 | 10 | 11 |
| NET DRY DENSITY (kg/m ³) | 1210 | 1270 | 1240 | 1200 | 1210 |
| SPECIMEN NO | 12 | | | | |
| NET DRY DENSITY (kg/m ³) | 1180 | | | | |

| | | | |
|----------------------------|--|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | EJMILLANA |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 19/10/2020 12:29PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS EN 772-13 : 2000 cl. 7.2 | Test Method Variation: | |
| Remarks: | - SAMPLING IS PERFORMED BY THE CUSTOMER / Production Date : 08-09-2020 | | |

To verify this document please go to :

<https://dclservices.dm.gov.ae/DCLServices/emtxrpt>

Enter Document ID: **EMTX-2020-1006168** and Verification Code: **DJYN**

or Scan the QR code below.



***** END OF REPORT *****

This report is computer approved and authorized by Head of Unit and does not require any signature.



LB-TEST-014

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 1 |



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

| | | | |
|--------------------|---|----------------------|--------------------------|
| REPORT NO. | : R1DX21-131592 - 131593 | DATE | : 09/12/2021 |
| REQUEST NO. | : Q1DX21-078385 | SAMPLE NO. | : S1DX21-078385 |
| SENDER'S REF. | : NOT GIVEN | PROJECT NO. | : IQC |
| PROJECT NAME | : INTERNAL QUALITY CHECKING | | |
| CLIENT NAME | : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| CONSULTANT | : NO SPECIFIC CONSULTANT | | |
| CONTRACTOR | : NO SPECIFIC CONTRACTOR | | |
| ADDRESS | : DUBAI, UAE | | |
| SAMPLED BY | : NAHAS REPRESENTATIVE | | |
| SAMPLE BROUGHT BY | : GTL'S REPRESENTATIVE | | |
| LOCATION | : MACON | SAMPLE SIZE | : NOT GIVEN |
| LAYER | : SINGLE | LOT SIZE | : NOT GIVEN |
| SOURCE | : MACON | LOT NO. | : NOT GIVEN |
| SAMPLE DESCRIPTION | : 4" HOLLOW LIGHT WEIGHT BLOCK | BUNDLE NO. | : NOT APPLICABLE |
| COLOR/CLASS | : NOT GIVEN | TESTING DATE | : 05/12/2021 |
| WORK SIZE (mm) | : 400 x 100 x 200 | SAMPLING DATE / TIME | : 30/11/2021 / NOT GIVEN |
| UNIT SAMPLE FROM | : NOT GIVEN | RECEIVING DATE | : 05/12/2021 |

RESULT

| PARAMETER | UNIT | CLIENT'S SPECIFICATION | RESULT |
|--|----------------------------|------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | < 0.05 | 0.02 |
| ACID SOLUBLE SULPHATE as SO ₃ | | < 0.5 | 0.48 |

| | |
|-----------------------|--|
| TESTED ON | : 05/12/2021 - 08/12/2021 |
| SAMPLING REPORT NO | : NOT GIVEN |
| SAMPLING METHOD | : RANDOM |
| SAMPLE PREPARATION | : BS 1881 PART 124 : 2015 CLS. 5.5.2 |
| TEST METHOD | : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015 CLS. 12.1 : ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015 CLS. 12.2 |
| TEST METHOD VARIATION | : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT. |
| TESTED BY | : PGN |
| REMARKS | : THE TESTED SAMPLE MEETS THE SPECIFICATION LIMITS SUBMITTED BY THE CLIENT WITH RESPECT TO THE ABOVE PARAMETERS. |



Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

*Results relates only to the items tested.
*Reports shall not be reproduced (except in full) without written approval of the Laboratory.
Form No.: CH-45 Issue : 01/ 01.08.2001 Rev. : 04 / 13.09.2008
Page 1 of 1

For GEOSCIENCE TESTING LABORATORY



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

Report No. : R1DX21-090279 - 090280
Request No. : Q1DX21-053177
Sender's Ref. No : NOT GIVEN
Project Name : IQC
Client Name : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON)
Consultant : NO SPECIFIC CONSULTANT
Contractor : MACON LLC
Address : DUBAI, U.A.E
Sampled By : NAHAS SALIM
Sampling Brought By : GTL'S REPRESENTATIVE



Date : 10/08/2021

Sample No : S1DX21-053177

Project No : NOT GIVEN

Location : MACON
Layer : BLOCK
Source : MACON LLC
Sample Description : MASONRY HOLLOW LIGHT WEIGHT CONCRETE BLOCK (4" HOLLOW LIGHT WEIGHT)
Color / Class : NOT GIVEN
Work Size (mm) : 400 x 100 x 200
Unit Sampled From : NOT GIVEN
Sample Size : NOT GIVEN
Lot Size : 21410223
Lot No : 21410223
Bundle No : NOT APPLICABLE
Testing Date : 05/08/2021
Sampling Date / Time : 04/08/2021/ NOT GIVEN
Receiving Date : 05/08/2021

RESULT

| PARAMETER | UNIT | RESULT |
|--|----------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl | % weight of dried material | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | % weight of dried material | 0.43 |

Tested On : 05/08/2021
Sampling Report No : NOT GIVEN
Sampling Method : RANDOM
Sample Preparation : BS 1881 PART 124 : 2015 CLS. 5.5.2
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 2015 CLS. 12.1
ACID SOLUBLE SULPHATE : BS 1881 PART 124 2015 CLS. 12.2
Test Method variation : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT.
Tested By : HNK
Remarks : NONE



af
Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

Results relates only to the items tested
Reports shall not be reproduced (except in full) without the written approval from the laboratory
Form No: CH - 45 Issue: 01/01.08.2001 Rev.: 04/13.09.2008
Page 1 of 1

For GEOSCIENCE TESTING LABORATORY



LIGHT WEIGHT HOLLOW BLOCK
400 X 150 X 200 MM

- TEST REPORT - COMPRESSIVE STRENGTH**
- REPORT ON GROSS DRY DENSITY**



مختبر علوم التربة لفحص المواد

GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : R1DX18-269393
Request No. : Q1DX18-187084
Sender's Ref No. : 6"-B1,B2,B3
Project Name : Internal Quality checking
Address : Dubai, UAE
Client Name : Mansoor Concrete Block Industry L.L.C
Consultant : No Specific Consultant
Contractor : No Specific Contractor
Location : DXB



Date : 04/12/2018
Project No. : IQC
Sample No. : S1DX18-187084
Sampling Date : Not Provided
Sampling Time : Not Provided
Sample Received Date : 28/11/2018
Sample Received Time : 14:00

Sampled By : Client Rep. Unit Sampled from : Block Factory
Sample Brought By : Client Rep. Area No. : Not Provided
Plot No. : Not Provided
Lot No. : Not Provided
Source : Macon Lot Size : Not Provided
Sample Description : Masonry Hollow Light Weight Concrete Block Size of Sample : 03
Work Size of Blocks : L: 400 W: 150 H: 200

| Specimen No | Bundle No | Production | | Crushing value (N/mm ²) |
|-------------|-----------|------------|------|-------------------------------------|
| | | No | Date | |
| 1 | N.G | N.G | N.G | 1.2 |
| 2 | N.G | N.G | N.G | 0.9 |
| 3 | N.G | N.G | N.G | 1.1 |

Compressive Strength (N/mm²) : 1.1 Standard Deviation : 0.1

Certificate No. : Not Provided
Testing Date : 01/12/2018
Sampling Method : W1-IC-1002
Sampling Report No. : Not Provided
Test Method : BS 6073 Part 2 : 1981 AMD 4508 : 1984
Test Method Variation : None
Tested By : LSS
Remarks : None

Results relates only to the items tested
Reports shall not be reproduced (Except in full) without the written approval of the laboratory
Form No: MD/PC-17 Issue: 02/13.09.2008 Rev: 04/11.04.2017
Page 1 of 1



Sunny Paily
Technical Manager
(Civil)

For GEOSCIENCE TESTING LABORATORY



LB - 003 - TEST

Dubai : P.O. Box : 61670, Tel : +971-4-431 4690, Fax : +971-4-431 4570
Website : www.geoscience.ae E-mail : info@gtl.ae



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON GROSS DRY DENSITY OF MASONRY UNITS

| | | |
|----------------------|--|---|
| Report No. | : R1DX18-269394 |  |
| Request No. | : Q1DX18-187084 | |
| Sender's Ref. No. | : 6"-B1,B2,B3 | Date : 04/12/2018 |
| Project Name | : Internal Quality checking | Sample No. : S1DX18-187084 |
| Client Name | : Mansoor Concrete Block Industry L.L.C | Project No. : IQC |
| Address | : Dubai, U.A.E | |
| Consultant | : No Specific Consultant | |
| Contractor | : No Specific Contractor | |
| Sampled by | : Client Rep. | Sampling Received Date : 28/11/2018 |
| Sample Brought in by | : Client Rep. | Sampling Date : Not Provided |
| Location | : DXB | Lot Size : Not Provided |
| Source | : Macon | Lot No. : Not Provided |
| Unit Sample From | : Block Factory | Production Date : Not Provided |
| Sample Description | : Masonry Hollow Light Weight Concrete Block | Work size(mm) : 400x150x200 |

Results

| Specimen No. | Gross Dry Density (Kg/m ³) |
|----------------|--|
| 1 | 520 |
| 2 | 540 |
| 3 | 520 |
| Average | 530 |

| | |
|---------------------------|----------------------------|
| Test Date | : 29/11/2018-30/11/2018 |
| Sampling Method | : Random |
| Sampling Report No. | : Not Provided |
| Test Specimen Preparation | : BS EN 772 : 2000 Part 16 |
| Test Method | : BS EN 772 : 2000 Part 13 |
| Test Method Variation | : None |
| Tested by | : KHN/LSS |
| Remarks | : None |



* Results relates only to the samples tested.


* Test reports shall not be reproduced (except in full) without the written approval from the laboratory.

Form No : MD/PC-155

Issue : 01/23.06.2008

Rev : 01/14.09.2008

Page 1 of 1


Sunny Paily
Technical Manager
(Civil)

For GEOSCIENCE TESTING LABORATORY

Ma Con

**LIGHT WEIGHT HOLLOW BLOCK
400 X 200 X 200 MM**

**- DM CERTIFICATE OF COMPLIANCE
- TEST REPORT - COMPRESSIVE STRENGTH**

Certificate of Compliance

Certificate No. : BBCE-2019-002910
Certificate Date: 28/04/2019
Factory Name: MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.)
Lot No: 19410152
Sample Description : Masonry Hollow Light Weight Concrete Block
Lot Size: 9990 **Color :**
Work size: 400 L1 x 0 L2 x 200 W x 200 H

| Sender No | Test Type | Test Carried Out | Test Report N | P/F |
|-----------|-----------|--|---------------|------|
| AJ1025 | Regular | EMSU0002 COMPRESSIVE STRENGTH OF HOLLOW MASONRY BLOCKS | R1DX19-073962 | Pass |
| AJ1025 | Regular | EMSU0005 DIMENSION OF HOLLOW MASONRY BLOCKS | R1DX19-073963 | Pass |

The lot was found Complying to Dubai Municipality Standard (DMS) specification with respect to test carried out as mentioned above.

Verified BY: AbuBaker Kutty

HEAD OF CERTIFICATION UNIT

This document is electronically approved and does not required a signature.

To verify the authenticity of this document please visit <http://login.dm.gov.ae/wps/portal/documentverification>

and enter the Document ID BBCE-2019-002910 and Verification Code 968051, or alternatively scan the QR code.

هذا المستند معتمد الكترونيا ولا يحتاج الى توقيع للتحقق من صحة هذه الوثيقة يرجى زيارة

<http://login.dm.gov.ae/wps/portal/documentverification>

ثم أدخل معرف المستند BBCE-2019-002910 وكود التأكيد 968051 ، أو بدلا من ذلك مسح QR Code



PRODUCTS CONFORMITY ASSESSMENT SECTION
DUBAI CENTRAL LABORATORY DEPARTMENT
DUBAI MUNICIPALITY
TEL: (04) 3027575 FAX: (04) 3351127
e-mail:certification@dm.gov.ae



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

Report No. : R1DX21-115566 - 115567
Request No. : Q1DX21-068752
Sender's Ref. No : NOT GIVEN
Project Name : INTERNAL QUALITY CHECKING
Client Name : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON)
Consultant : NO SPECIFIC CONSULTANT
Contractor : NO SPECIFIC CONTRACTOR
Address : DUBAI, U.A.E
Sampled By : NAHAS
Sampling Brought By : GTL'S REPRESENTATIVE



Date : 25/10/2021

Sample No : S1DX21-068752

Project No : IQC

Location : MACON
Layer : DOUBLE LAYER
Source : MACON
Sample Description : 8" HOLLOW BLOCK LIGHT WEIGHT
Color / Class : NOT GIVEN
Work Size (mm) : 400x200x200
Unit Sampled From : NOT GIVEN
Sample Size : NOT GIVEN
Lot Size : NOT GIVEN
Lot No : 21410224
Bundle No : NOT GIVEN
Testing Date : 19/10/2021
Sampling Date / Time : 07/10/2021/ NOT GIVEN
Receiving Date : 19/10/2021

RESULT

| PARAMETER | UNIT | RESULT |
|--|----------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | % weight of dried material | 0.45 |

Tested On : 19/10/2021 - 24/10/2021
Sampling Report No : NOT GIVEN
Sampling Method : RANDOM
Sample Preparation : BS 1881 PART 124 : 2015 CLS. 5.5.2
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 2015 CLS. 12.1
ACID SOLUBLE SULPHATE : BS 1881 PART 124 2015 CLS. 12.2
Test Method variation : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE
INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT.
Tested By : MHA
Remarks : NONE



Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

Results relates only to the items tested

Reports shall not be reproduced (except in full) without the written approval from the laboratory

Form No: CH - 45

Issue: 01/01.08.2001


Rev.: 04/13.09.2008or GEOSCIENCE TESTING LABORATORY

Page 1 of 1



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON NET DRY DENSITY OF MASONRY UNITS

| | | |
|----------------------|---|---|
| Report No. | : R1DX21-115564 |  |
| Request No. | : Q1DX21-068752 | |
| Sender's Ref. No. | : Not Given | Date : 18/10/2021 |
| Project Name | : Internal Quality checking | Sample No. : S1DX21-068752 |
| Client Name | : Mansoor Concrete Block Industry LLC (MACON) | Project No. : IQC |
| Address | : Dubai, U.A.E | |
| Consultant | : No Specific Consultant | |
| Contractor | : No Specific Contractor | |
| Sampled by | : Client Rep | Sampling Received Date : 07/10/2021 |
| Sample Brought in by | : Client Rep | Sampling Date : 07/10/2021 |
| Location | : Jabel Ali | Lot Size : Not Given |
| Source | : Mansoor Concrete Block Industry LLC (MACON) | Lot No. : 21410224 |
| Unit Sample From | : Factory Yard | Production Date : Not Provided |
| Sample Description | : Masonry Hollow Light Weight Concrete Block | Work size(mm) : 400x200x200mm |

Results

| Specimen No. | Net Dry Density (Kg/m ³) |
|--------------|--------------------------------------|
| 1 | 1500 |
| Average | 1500 |

| | |
|---------------------------|----------------------------|
| Test Date | : 17/10/2021- 18/10/2021 |
| Sampling Method | : Random |
| Sampling Report No. | : Not Provided |
| Test Specimen Preparation | : BS EN 772 : 2000 Part 16 |
| Test Method | : BS EN 772 : 2000 Part 13 |
| Test Method Variation | : None |
| Tested by | : LSS |
| Remarks | : None |

* Results relates only to the samples tested.

* Test reports shall not be reproduced (except in full) without the written approval from the laboratory.

Form No : MD/PC-155

Issue : 01/23.06.2008

Rev : 01/14.09.2008

Page 1 of 1



For GEOSCIENCE TESTING LABORATORY



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON LINEAR DRYING SHRINKAGE OF CONCRETE MASONRY UNITS

Report No. : R1DX21-115565
Request No. : Q1DX21-068752
Sender's Ref. No : Not Given
Project Name : Internal Quality checking
Client Name : Mansoor Concrete Block Industry LLC (MACON)
Consultant : No Specific Consultant
Contractor : No Specific Contractor
Address : Dubai, UAE
Sampled By : Client Rep
Sample Brought by : Client Rep



Date: 23/10/2021
Sample No.: S1DX21-068752
Project No.: IQC
Sampling Date: 07/10/2021
Production Date: 26/10/2021
Sample Received Date: 07/10/2021

Location : Jabel Ali
Lot Size : Not Given
Source : Mansoor Concrete Block Industry LLC (MACON)
Sample Dimension (mm) : 400x200x200mm
Sample Description : Masonry Hollow Light Weight Concrete Block

Lot No: 21410224
Age of specimen at testing: Not Provided
Date Test Started: 13/10/2021
Date Test Completed: 23/10/2021

RESULTS

| SPECIMEN ID | DIMENSIONS | MEASUREMENTS | | | | EQUILIBRIUM CONDITION |
|-------------|-----------------------------|---------------------|---------------|--------|--------|-----------------------|
| | | SATURATED CONDITION | DRYING PERIOD | | | |
| | | | 5 DAYS | 7 DAYS | 9 DAYS | |
| A | Weight (g) | 1998 | 1926 | 1914 | 1908 | 1900 |
| | Length (mm) | 11.683 | 11.615 | 11.584 | 11.561 | 11.543 |
| | Linear drying shrinkage (%) | N/A | 0.023 | 0.033 | 0.041 | 0.047 |
| B | Weight (g) | 2069 | 1994 | 1980 | 1975 | 1969 |
| | Length (mm) | 11.555 | 11.495 | 11.466 | 11.446 | 11.426 |
| | Linear drying shrinkage (%) | N/A | 0.020 | 0.030 | 0.036 | 0.043 |
| C | Weight (g) | 1971 | 1909 | 1898 | 1892 | 1884 |
| | Length (mm) | 10.884 | 10.821 | 10.789 | 10.772 | 10.752 |
| | Linear drying shrinkage (%) | N/A | 0.021 | 0.032 | 0.037 | 0.044 |
| D | Weight (g) | 2085 | 2014 | 2002 | 1996 | 1990 |
| | Length (mm) | 11.474 | 11.409 | 11.381 | 11.355 | 11.336 |
| | Linear drying shrinkage (%) | N/A | 0.022 | 0.031 | 0.040 | 0.046 |

Sampling Report No : Not Provided
Sampling Method : Random
Specimen Preparation : ASTM C 426 :2006
Test Method : ASTM C 426 :2006
Test Method variation : None
Tested by : LSS
Remarks : None



Results relates only to the items tested
Reports shall not be reproduced (Except in full) without the written approval of the laboratory
Form : MD/PC-238 Issue : 01/28.03.2011 Rev : 0/-

For GEOSCIENCE TESTING LABORATORY



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON COMPRESSIVE STRENGTH OF CONCRETE MASONRY BLOCKS

Report No. : 073962 Date : 24/04/2019
Request No. : 048859 Sample No. : 048859
Senders Ref. : AJ1025 Project No. : 513138
Project Name : Mansoor Concrete Block Industry (LLC)
Address : P.O Box 86291, Dubai - UAE
Client Name : Dubai Municipality Sampling Date : 23/04/2019
Consultant : No Specific Consultant Sampling Time : Not Given
Contractor : No Specific Contractor Sample Received Date : 23/04/2019
Location : Jabel Ali Sample Received Time : 14:00
Sampled by : AbuBaker Kutty Unit Sampled from : Block Factory
Sample Brought by : AbuBaker Kutty Area No. : Not Given
Plot No. : Not Given
Source : Mansoor Concrete Block Industry (LLC) Lot No. : 19410152
Sample Description : Masonry Hollow Light Weight Concrete Block Lot Size : 9990
Work Size of Blocks : L 400 W 200 H 200 Size of Sample : 10

| Specimen No. | Bundle No | Production | | Crushing Strength (N/mm ²) |
|--------------|-----------|------------|------------|--|
| | | No. | Date | |
| 1 | 6 | N.G | 01/04/2019 | 3.6 |
| 2 | 24 | N.G | 01/04/2019 | 3.8 |
| 3 | 42 | N.G | 01/04/2019 | 4.5 |
| 4 | 66 | N.G | 01/04/2019 | 3.2 |
| 5 | 84 | N.G | 01/04/2019 | 4.2 |
| 6 | 102 | N.G | 01/04/2019 | 3.9 |
| 7 | 120 | N.G | 01/04/2019 | 3.7 |
| 8 | 144 | N.G | 01/04/2019 | 3.1 |
| 9 | 162 | N.G | 01/04/2019 | 4.2 |
| 10 | 185 | N.G | 01/04/2019 | 3.7 |

Compressive Strength (N/mm²)

3.8

Standard Deviation 0.4

Certificate No. : Not Given
Testing Date : 24/04/2019
Sampling Method : WI -IC - 1002
Sampling Report No : 2019-002910
Test Method : BS 6073: Part 2:1981 App B AMD 4508 - 1984
Test Method Variation : None
Tested By : KHN/LSS
Remarks : None

* Results related only to the items tested.

* Reports shall not be reproduced (except in full) without the written approval of the laboratory.

Form : MD/PC-17

Issue : 02 / 13.09.2008

Page 1 of 1



Rev. : 01/17.02.2010

Sunny Paily
Technical Manager
(Civil)

For GEOSCIENCE TESTING LABORATORY





LB - 003 - TEST

Dubai : P.O. Box : 61670, Tel : +971-4-431 4690, Fax : +971-4-431 4570
Website : www.geoscience.ae E-mail : info@gtl.ae



**LIGHT WEIGHT THERMAL BLOCK
400X250X200MM
60MM INSERT**

- **DM CERTIFICATE OF COMPLAINE**
- **TEST REPORT – COMPRESSIVE STRENGTH**
- **THERMAL TRANSMITTANCE (U-VALUE)**

| | | | |
|---|---|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DIMENSION OF MASONRY UNITS | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |



**CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT**

| | | | |
|--|---|-------------------------------------|--------------------|
| Report No: | 198259 | Request No: | EMTX-2020-1006447 |
| Project No: | BA-28 | Report Date: | 22/10/2020 12:39PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | THERMO HOLLOW LIGHTWEIGHT (60 MM SANDWICH) | | |
| Sampling Date/Time: | 05/10/2020 12:00AM | Lot Number: | 20410169 |
| Receiving Date/Time: | 20/10/2020 12:55PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0502 |
| Material/Mix Type: | | Laying Date/Production Date: | |
| Nominal Size / Working Block Size L * T * H (mm) : 400X250X200 MM | | | |

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|----------------------------|---|-------|-------------------------------|--------------------|-------|
| NOMINAL SIZE, mm | 400*250*200 | | | | |
| PRODUCTION DATE | 01/07/2020 | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| LENGTH (mm) | 400.0 | 399.5 | 400.0 | 400.0 | 399.5 |
| WIDTH (mm) | 250.0 | 249.0 | 250.0 | 249.0 | 249.5 |
| HEIGHT (mm) | 202.0 | 200.5 | 201.0 | 201.0 | 200.5 |
| SHELL THICKNESS (mm) | 27.5 | 28.0 | 28.0 | 28.5 | 28.0 |
| SPECIMEN NO | 6 | | | | |
| LENGTH (mm) | 400.0 | | | | |
| WIDTH (mm) | 249.0 | | | | |
| HEIGHT (mm) | 199.5 | | | | |
| SHELL THICKNESS (mm) | 29.0 | | | | |
| Sampled By: | LINO M. LINGAO | | Tested By: | EJMILLANA | |
| Sampled Brought By: | CLIENT REPRESENTATIVE | | Testing Date: | 20/10/2020 12:55PM | |
| Sampling Method: | DCL-IC-99 | | Sampling Report No: | | |
| Test Method: | BS EN 772-16 : 2011 | | Test Method Variation: | | |
| Remarks: | - Sampling is performed by the customer | | | | |

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

| | | | |
|---|--|-------------------|--|
|  GOVERNMENT OF DUBAI | Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department | الوحدة التنظيمية: |  بلدية دبي DUBAI MUNICIPALITY |
| | Document Title: TEST REPORT DETERMINATION OF COMPRESSIVE STRENGTH OF MASONRY UNIT | عنوان الوثيقة: | |
| | Doc Ref.: DM-DCLD-F-CM-0100 | رقم الوثيقة: | |

CONSTRUCTION MATERIAL LABORATORY SECTION
STRUCTURAL PRODUCT UNIT

| | | | |
|-----------------------------|---|-------------------------------------|--------------------|
| Report No: | 198260 | Request No: | EMTX-2020-1006447 |
| Project No: | BA-28 | Report Date: | 22/10/2020 12:39PM |
| Project Name: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Consultant: | DUBAI MUNICIPALITY | | |
| Contractor: | MANSOOR CONCRETE BLOCK INDUSTRY (L.L.C.) | | |
| Location: | FACTORY YARD | | |
| Source: | MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| Sample Description: | THERMO HOLLOW LIGHTWEIGHT (60 MM SANDWICH) | | |
| Sampling Date/Time: | 05/10/2020 12:00AM | Lot Number: | 20410169 |
| Receiving Date/Time: | 20/10/2020 12:55PM | Lot Size: | |
| Sample Size: | 15.00 pieces | Sender No: | LL0502 |
| Material/Mix Type: | | Laying Date/Production Date: | |

Nominal Size / Working Block Size L * T * H (mm) : 400X250X200 MM

TEST RESULTS

| PARAMETER | RESULTS | | | | |
|---|-------------------------------|-----|-----|-----|-----|
| PRODUCTION DATE | 01/07/2020 | | | | |
| NOMINAL SIZE | 400 X 250 X 200 | | | | |
| TESTING SIZE (mm) | 400 X 250 X 200 | | | | |
| SURFACE PREPARATION | NO SURFACE PREPARATION | | | | |
| CONDITIONING METHOD | AS PER DMS 1 : PART 5 ANNEX A | | | | |
| PRODUCT TYPE | NG | | | | |
| SPECIMEN NO | 1 | 2 | 3 | 4 | 5 |
| FAILURE LOAD (kN) | 354 | 428 | 382 | 341 | 486 |
| COMPRESSIVE STRENGTH (N/mm ²) | 3.5 | 4.3 | 3.8 | 3.4 | 4.9 |
| SPECIMEN NO | 6 | | | | |
| FAILURE LOAD (kN) | 535 | | | | |
| COMPRESSIVE STRENGTH (N/mm ²) | 5.4 | | | | |
| AVE. COMPRESSIVE STRENGTH | 4.2 | | | | |
| STANDARD DEVIATION | 0.8 | | | | |
| COEFFICIENT OF VARIATION (%) | 19.0 | | | | |

| | | | |
|----------------------------|------------------------------|-------------------------------|--------------------|
| Sampled By: | LINO M. LINGAO | Tested By: | EJMILLANA |
| Sampled Brought By: | CLIENT REPRESENTATIVE | Testing Date: | 20/10/2020 12:55PM |
| Sampling Method: | DCL-IC-99 | Sampling Report No: | |
| Test Method: | BS EN 772-1 : 2011 ; DMS 001 | Test Method Variation: | NIL |

Remarks: - Sampling is performed by the customer / NO SEPARATION FOUND BETWEEN CONCRETE & POLYSTYRENE

PO Box 67, Dubai, UAE - Tel: (+971 4) 3369900 - Fax: (+971 4)3366399 - Email: labs@dm.gov.ae - Website: http://www.dm.gov.ae

This report shall not be reproduced except in full without approval of the laboratory.

| | | |
|-----------------|--|-------------|
| Date of Issue : | 14/10/2019 | Rev No. : 2 |
| General / عام | Level of Confidentiality / درجة السرية | Page 1 of 2 |

**REPORT ON
THERMAL TRANSMISSION PROPERTIES BY CALCULATION METHOD
ACCORDING TO BS EN ISO 6946**

REFERENCE NO. : 2020-661
ISSUE DATE : 22/10/2020
CLIENT : Mansoor Concrete Block Industry-LLC (MACON)
 400X250X200 mm Leca Light Weight Hollow Thermo Block 60mm Insert
PRODUCT :
PRODUCT DESCRIPTION : 400X250X200 mm Leca Light Weight Hollow Thermo Block 60mm Insert
PRODUCT WEIGHT (kg) : 20
PRODUCT THICKNESS (m) : 0.25
 (PERPENDICULAR TO HEAT FLOW DIRECTION)

PRODUCT CONFIGURATION :



| Product's COMPONENTS | DENSITY [kg/m ³] | THERMAL CONDUCTIVITY [W/(m.K)] | CONDITION of TEST | | TEST REPORT / REFERENCE |
|----------------------|------------------------------|--------------------------------|-------------------|----|-------------------------|
| | | | % RH | °C | |
| LECA Concrete | 1173 | 0.222 | -- | -- | 1DX20-145197/R1 |
| polystyrene | 25 | 0.033 | | | DCL 100422652 |

| CALCULATION RESULTS | UPPER LIMIT | LOWER LIMIT | AVERAGE |
|---|-------------|-------------|---------|
| THERMAL RESISTANCE [m ² .K/W] | 3.054 | 2.918 | 2.986 |
| EQUIVALENT THERMAL CONDUCTIVITY [W/(m.K)] | | | 0.084 |

REMARKS :

ISSUED BY:

ON BEHALF OF :

SAMEER DARWISH ALBOJOQ
PRINCIPAL FIELD STUDIES RESEARCHER

ARIF HUSAIN AI MARZOOQI *
PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

** Electronic Document – No Signature Required*

DATE: 22/10/2020

To: Mansoor Concrete Block Industry-LLC (MACON)

TEL: 971 4 8801 801

FAX: 971 4 8801 802

SUBJECT: Thermal transmittance (U) value calculation

Reference is made to your application regarding the subject above, please note the following:

1. Thermal transmittance (U) value of a wall constructed using "400X250X200 mm Leca Light Weight Hollow Thermo Block with 60 EPS insert is as follows:

a) Wall configuration:

| Layer | Thickness [mm] | Thermal conductivity [W/m.K] | Thermal Resistance [m ² .K/W] |
|------------------|----------------|------------------------------|--|
| External surface | -- | -- | 0.04 |
| Plaster | 15 | 0.72 | 0.0208 |
| Block* | 250 | 0.084 | 2.97619 |
| Plaster | 15 | 0.72 | 0.0208 |
| Internal surface | -- | -- | 0.12 |
| TOTAL | 280 | -- | 3.17779 |

* See Report on Thermal Transmission Properties issued by DCL; Ref: 2020- 661

b) Thermal transmittance (U-value)

| Description | U-value [W/(m ² .K)] |
|--|---------------------------------|
| Wall Thermal Transmittance (U = 1/R _T) | 0.31 |

Note:

1. This report represents submitted samples only.

REGARDS,

SAMEER DARWISH ALBOJOQ

PRINCIPAL FIELD STUDIES RESEARCHER

ON BEHALF OF: ARIF HUSAIN AL MARZOOQI*

PRODUCTS CONFORMITY ASSESSMENT SECTION MANAGER

DUBAI CENTRAL LABORATORY

** Electronic Document – No Signature Required*



مختبر علوم التربة لفحص المواد
GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

| | | | |
|--------------------|---|----------------------|--------------------------|
| REPORT NO. | : R1DX21-131585 - 131586 | DATE | : 09/12/2021 |
| REQUEST NO. | : Q1DX21-078381 | SAMPLE NO. | : S1DX21-078382 |
| SENDER'S REF. | : NOT GIVEN | PROJECT NO. | : IQC |
| PROJECT NAME | : INTERNAL QUALITY CHECKING | | |
| CLIENT NAME | : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON) | | |
| CONSULTANT | : NO SPECIFIC CONSULTANT | | |
| CONTRACTOR | : NO SPECIFIC CONTRACTOR | | |
| ADDRESS | : DUBAI, UAE | | |
| SAMPLED BY | : NAHAS REPRESENTATIVE | | |
| SAMPLE BROUGHT BY | : GTL'S REPRESENTATIVE | | |
| LOCATION | : MACON | SAMPLE SIZE | : NOT GIVEN |
| LAYER | : SINGLE | LOT SIZE | : NOT GIVEN |
| SOURCE | : MACON | LOT NO. | : NOT GIVEN |
| SAMPLE DESCRIPTION | : 10" THERMAL 60 mm EPS LIGHT WEIGHT CONCRETE BLOCK | BUNDLE NO. | : NOT APPLICABLE |
| COLOR/CLASS | : NOT GIVEN | TESTING DATE | : 05/12/2021 |
| WORK SIZE (mm) | : 400 x 250 x 200 - 60mm EPS | SAMPLING DATE / TIME | : 30/11/2021 / NOT GIVEN |
| UNIT SAMPLE FROM | : NOT GIVEN | RECEIVING DATE | : 05/12/2021 |

RESULT

| PARAMETER | UNIT | CLIENT'S SPECIFICATION | RESULT |
|--|----------------------------|------------------------|--------|
| ACID SOLUBLE CHLORIDE as Cl ⁻ | % weight of dried material | < 0.05 | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | | < 0.5 | 0.48 |

| | |
|-----------------------|--|
| TESTED ON | : 05/12/2021 - 08/12/2021 |
| SAMPLING REPORT NO | : NOT GIVEN |
| SAMPLING METHOD | : RANDOM |
| SAMPLE PREPARATION | : BS 1881 PART 124 : 2015 CLS. 5.5.2 |
| TEST METHOD | : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 : 2015 CLS. 12.1 : ACID SOLUBLE SULPHATE : BS 1881 PART 124 : 2015 CLS. 12.2 |
| TEST METHOD VARIATION | : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT. |
| TESTED BY | : HNK |
| REMARKS | : THE TESTED SAMPLE MEETS THE SPECIFICATION LIMITS SUBMITTED BY THE CLIENT WITH RESPECT TO THE ABOVE PARAMETERS. |




Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

•Results relates only to the items tested.
•Reports shall not be reproduced (except in full) without written approval of the Laboratory.
Form No.: CH-45 Issue : 01/ 01.08.2001 Rev. : 04 / 13.09.2008
Page 1 of 1

For GEOSCIENCE TESTING LABORATORY



مختبر علوم التربة لفحص المواد GEOSCIENCE TESTING LABORATORY

REPORT ON ACID SOLUBLE CHLORIDE AND SULPHATE IN HARDENED CONCRETE

Report No. : R1DX21-090271 - 090272
Request No. : Q1DX21-053173
Sender's Ref. No : NOT GIVEN
Project Name : IQC
Client Name : MANSOOR CONCRETE BLOCK INDUSTRY LLC (MACON)
Consultant : NO SPECIFIC CONSULTANT
Contractor : MACON LLC
Address : DUBAI, U.A.E
Sampled By : NAHAS
Sampling Brought By : GTL'S REPRESENTATIVE



Date : 10/08/2021

Sample No : S1DX21-053173

Project No : NOT GIVEN

Location : MACON
Layer : BLOCK
Source : MACON LLC
Sample Description : THERMAL LIGHT WEIGHT BLOCK 60 mm INSERT
Color / Class : NOT GIVEN
Work Size (mm) : 400 x 250 x 200 (10")
Unit Sampled From : NOT GIVEN
Sample Size : NOT GIVEN
Lot Size : 21410225
Lot No : 21410225
Bundle No : NOT APPLICABLE
Testing Date : 05/08/2021
Sampling Date / Time : 04/08/2021/ NOT GIVEN
Receiving Date : 05/08/2021

RESULT

| PARAMETER | UNIT | RESULT |
|--|----------------------------|--------|
| ACID SOLUBLE CHLORIDE as CT | % weight of dried material | 0.01 |
| ACID SOLUBLE SULPHATE as SO ₃ | % weight of dried material | 0.44 |

Tested On : 05/08/2021 - 09/08/2021
Sampling Report No : NOT GIVEN
Sampling Method : RANDOM
Sample Preparation : BS 1881 PART 124 : 2015 CLS. 5.5.2
Test Method : ACID SOLUBLE CHLORIDE : BS 1881 PART 124 2015 CLS. 12.1
ACID SOLUBLE SULPHATE : BS 1881 PART 124 2015 CLS. 12.2
Test Method variation : REPORTED VALUES ARE BASED ON PERCENTAGE (%) WEIGHT OF DRIED SAMPLE
INSTEAD OF PERCENTAGE (%) WEIGHT OF CEMENT.
Tested By : HNK
Remarks : NONE



Results relates only to the items tested
Reports shall not be reproduced (except in full) without the written approval from the laboratory
Form No: CH - 45 Issue: 01/01.08.2001 Rev.: 04/13.09.2008
Page 1 of 1

Sethupathi Shanmugavel
Technical Supervisor (Chemical)
Dubai

For GEOSCIENCE TESTING LABORATORY

Ma Con

**TEST REPORT
OF
RAW MATERIALS**

PARTICLE SIZE DISTRIBUTION

BS 812 : PART 103 : Sec.103.1 : 1985; AMD 6003 : 1989

Report Date : 29/03/2022

| | |
|---|---|
| Sample Number : SAG22-10099 | Report Number : RAG22-10099/1 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC (| Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| Test sieve size, mm | Cumulative percent passing |
|---------------------|----------------------------|
| 6.3 | 100 |
| 5.0 | 98 |
| 3.35 | 84 |
| 2.36 | 63 |
| 1.70 | 55 |
| 1.18 | 45 |
| 0.850 | 34 |
| 0.600 | 22 |
| 0.425 | 17 |
| 0.300 | 12 |
| 0.212 | 10 |
| 0.150 | 8 |
| 0.075 | 5 |

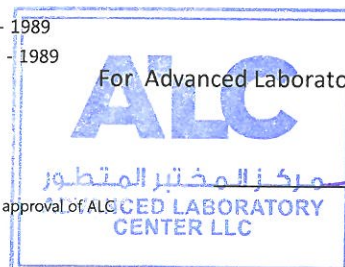
Sample Description : **0-5mm Crushed Aggregate**

Test procedure : **Wet method**

Testing Date : **21/03/2022**

Tested by : **NKL**

Certificate of Sampling : Not given
Sample preparation method : BS 812 PART 102 : 1989
Test Specimen Preparation : BS 812 PART 103 Sec 103.1 : 1985 Cls 6 AMD 6003 - 1989
Test Method : BS 812 PART 103 Sec 103.1 : 1985 Cls 7.2 AMD 6003 - 1989
Test variation : None
Remarks : None



This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC. One sample will be retained for a period of one month, unless otherwise requested.

Issue No./Dt 01/16.04.08 Form No.: AG-58

Revision No./Dt 06/20.05.2021 Page No. 1 of 1

MATERIALS | METALLURGY | GEOTECHNICAL | CHEMISTRY & LIFE SCIENCES | ENVIRONMENTAL | SPECIAL PRODUCTS

TEST REPORT
SOUNDNESS OF AGGREGATE
ASTM C 88/C 88M : 2018

Report Date : 29/03/2022

| | |
|--|--|
| Sample Number : SAG22-10099 | Report Number : RAG22-10099/2 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Indust | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |
| Specific gravity of Solution : 1.298 | Percentage material retained on 4.75 mm test sieve : 5 |
| Solution Used : MgSO ₄ | |
| Age of Solution : Fresh | Percentage material passing on 4.75 mm test sieve : 95 |
| Number of Cycles : 5 | |

Test Results :

| Test sieve size | Original grading of sample, Percent | Mass of test fraction before test, gram | Percentage passing designated sieve after test, Percent | Percent weight loss | | | | | | |
|--|-------------------------------------|---|---|---------------------|-----|----------|-----|---------|-----|-----------------------------|
| 63.0 mm - 37.5 mm | - | - | - | - | | | | | | |
| 37.5 mm - 19.0 mm | - | - | - | - | | | | | | |
| 19.0 mm - 9.5 mm | - | - | - | - | | | | | | |
| 9.5 mm - 4.75 mm | - | - | - | - | | | | | | |
| TOTAL OF COARSE AGGREGATES | | | | | | | | | | |
| 9.5 mm - 4.75 mm | 5.4 | 300 | 5.6 | 0.3 | | | | | | |
| 4.75 mm - 2.36 mm | 29.4 | 100 | 4.8 | 1.4 | | | | | | |
| 2.36 mm - 1.18 mm | 19.9 | 100 | 4.0 | 0.8 | | | | | | |
| 1.18 mm - 0.600 mm | 23.0 | 100 | 4.3 | 1.0 | | | | | | |
| 0.600 mm - 0.300 mm | 9.9 | 100 | 6.1 | 0.6 | | | | | | |
| 300 µm minus | - | - | - | - | | | | | | |
| TOTAL OF FINE AGGREGATES | | | | 4 | | | | | | |
| QUALITATIVE EXAMINATION OF COARSE SIZE AGGREGATES | | | | | | | | | | |
| Sieve size | No. of Particles Before Test | Splitting | | Crumbling | | Cracking | | Flaking | | No. of particles after test |
| | | No. | % | No. | % | No. | % | No. | % | |
| 37.5 mm - 19.0 mm | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | N/A |
| 19.0 - 9.5 mm | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | N/A |
| Total percentage weight loss calculated against the initial grading: | | | | | | | | | | N/A |

Sample Description : 0-5mm Crushed Aggregate

Testing Date : 22/03/2022 to 28/03/2022

Tested by : NKL/STH

Certificate of Sampling : Not given
Sample preparation method : ASTM C 702/C 702M : 2018
Test Specimen Preparation : ASTM C 88/C 88M : 2018 CLS. 8
Test Method : ASTM C 88/C 88M : 2018 CLS. 9
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC



This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-51
Revision No./Dt 06/17.06.2021 Page No.: 1 of 1

TEST REPORT

CLAY LUMPS AND FRIABLE PARTICLES IN AGGREGATE

ASTM C 142/C142M : 17

Report Date : 29/03/2022

| | |
|--|---|
| Sample Number : SAG22-10099 | Report Number : RAG22-10099/4 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC (M | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| Clay lumps & friable particles, % | |
|-----------------------------------|---------------|
| Coarse fraction | Fine fraction |
| Not applicable | 0.9 |

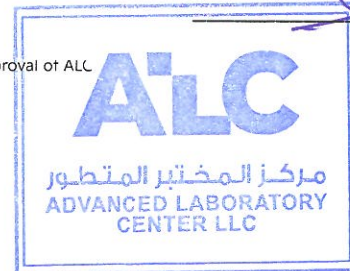
Sample Description : **0-5mm Crushed Aggregate**
Testing Date : **24/03/2022 to 26/03/2022**
Tested by : **NKL/STH**

Certificate of Sampling : Not Given
Sample preparation method : ASTM C 702/C 702M : 2018
Test Specimen Preparation : ASTM C 142/C 142M : 2017 Cls.6
Test Method : ASTM C 142/C 142M : 2017 Cls.7
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested.

Issue No./Dt 01/16.04.08 Form No.: AG-42
Revision No./Dt 05/17.06.2021 Page No.: 1 of 1



TEST REPORT

MATERIAL FINER THAN 75µm SIEVE BY WASHING

ASTM C117 : 1995

Report Date : 29/03/2022

| | |
|--|--|
| Sample Number : SAG22-10099 | Report Number : RAG22-10099/5 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC (Mansoor) | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| | |
|---|-----|
| Percentage of material finer than 75 µm sieve by washing, % | 4.9 |
|---|-----|

Sample Description : 0-5mm Crushed Aggregate

Test procedure : A

Testing Date : 24/03/2022

Tested by : NKL

Certificate of Sampling : Not given
Sample preparation method : ASTM C 702/C 702M : 2018
Test Specimen Preparation : ASTM C 117 : 1995 Cls. 6
Test Method : ASTM C 117 : 1995 Cls. 8
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-49
Revision No./Dt 05/17.06.2021 Page No.: 1 of 1



TEST REPORT

**RESISTANCE TO DEGRADATION OF SMALL SIZE COARSE AGGREGATES BY ABRASION AND IMPACT
IN LOS ANGELES MACHINE
ASTM C131/C131M - 20**

Report Date : 29/03/2022

| | |
|--|--|
| Sample Number : SAG22-10099 | Report Number : RAG22-10099/6 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| | |
|--------------------------------|----|
| Loss by abrasion and impact, % | 23 |
|--------------------------------|----|

Sample Description : 0-5mm Crushed Aggregate
Grade designation : C
Testing Date : 25/03/2022
Tested by : NKL

Certificate of Sampling : Not given
Sample preparation method : ASTM C 702/C702M-18
Test Specimen Preparation : ASTM C131/C131M - 20 Cls 8
Test Method : ASTM C131/C131M - 20 Cls 9
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-53
Revision No./Dt 04/20.05.2021 Page No.: 1 of 1



TEST REPORT

ACID SOLUBLE CHLORIDE AND ACID SOLUBLE SULPHATE
OF AGGREGATES

Report Date : 23-03-2022

| | |
|--|--|
| Sample Number : SCH22-10100 | Report Number : RCH22-10100/ 1 |
| Project Number : Not Applicable | Plot No. : Not Given |
| Project Name : Internal Quality Check | Sample Source : Steven Rock |
| Contractor : Not Applicable | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry-LLC (Macon) | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18-03-2022 / N.G |
| Consultant : Not Applicable | Sampling Method : Random |
| Client Ref./Req. No. : Not Given | Sample Delivered By : ALC Tech. |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18-03-2022/16:00 Hrs |

Test Results :

| Parameters | Percent mass of dried material |
|--|--------------------------------|
| Acid soluble chloride as Cl [*] | 0.02 |
| Acid soluble sulphate as SO ₃ ²⁻ | 0.08 |

Sample Description : 0-5mm Crushed Aggregate

Testing Date : 19-03-2022 to 22-03-2022

Tested by : DKP

Sample preparation method : BS 812 PART 102 : 1989
Test Specimen Preparation : ACID SOLUBLE CHLORIDE : BS 812 PART 118 : 1988, CLS. 6.3
: ACID SOLUBLE SULPHATE : BS 812 PART 118 : 1988, CLS. 6.3
Test Method : ACID SOLUBLE CHLORIDE : BS 812 PART 117 : 1988, APPENDIX C
: ACID SOLUBLE SULPHATE : BS 812 PART 118 : 1988, CLS. 6.4
Test variation : None
Remarks : None
*Not accredited by EIAC.

for Advanced Laboratory Center



Signature

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested.

Issue No./Dt 01/14.04.08 Form No.: CH-15
Revision No./Dt 02/20.05.2021 Page No.: 1 of 1

MATERIALS | METALLURGY | GEOTECHNICAL | CHEMISTRY & LIFE SCIENCES | ENVIRONMENTAL | SPECIAL PRODUCTS

TEST REPORT

PARTICLE SIZE DISTRIBUTION

BS 812 : PART 103 : Sec.103.1 : 1985; AMD 6003 : 1989

Report Date : 29/03/2022

| | |
|--|--|
| Sample Number : SAG22-10097 | Report Number : RAG22-10097/1 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC (Macon) | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| Test sieve size, mm | Cumulative percent passing |
|---------------------|----------------------------|
| 14.0 | 100 |
| 10.0 | 88 |
| 6.3 | 11 |
| 5.0 | 5 |
| 3.35 | 3 |
| 2.36 | 2 |
| 0.075 | 1 |

Sample Description : 5-10mm Crushed Aggregate

Test procedure : Wet method

Testing Date : 21/03/2022

Tested by : NKL

Certificate of Sampling : Not given
Sample preparation method : BS 812 PART 102 : 1989
Test Specimen Preparation : BS 812 PART 103 Sec 103.1 : 1985 Cls 6 AMD 6003 - 1989
Test Method : BS 812 PART 103 Sec 103.1 : 1985 Cls 7.2 AMD 6003 - 1989
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC



This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC. The sample will be retained for a period of one month, unless otherwise requested.

Issue No./Dt 01/16.04.08 Form No.: AG-58
Revision No./Dt 05/20.05.2021 Page No.: 1 of 1

TEST REPORT

FLAKINESS INDEX OF AGGREGATE
BS 812 : PART 105 : Sec.105.1 : 1989

Report Date : 29/03/2022

| | |
|--|--|
| Sample Number : SAG22-10097 | Report Number : RAG22-10097/2 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| Test sieve size, mm | Percentage retained |
|---------------------|---------------------|
| 10.0 | 13.3 |
| 6.3 | 86.7 |
| Flakiness index | 10 |

Sample Description : 5-10mm Crushed Aggregate
Testing Date : 21/03/2022
Tested by : NKL

Certificate of Sampling : Not given
Sample preparation method : BS 812 PART 102 : 1989
Test Specimen Preparation : BS 812 PART 105 Sec 105.1 : 1989 Cls 6
Test Method : BS 812 PART 105 Sec 105.1 : 1989 Cls 7
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-54
Revision No./Dt 04/20.05.2021 Page No.: 1 of 1



TEST REPORT

ELONGATION INDEX OF AGGREGATE

BS 812 : PART 105 : SEC.105.2 : 1990

Report Date : 29/03/2022

| | |
|---|---|
| Sample Number : SAG22-10097 | Report Number : RAG22-10097/3 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| Test sieve size, mm | Percentage retained |
|-------------------------|---------------------|
| 10.0 | 13.3 |
| 6.3 | 86.7 |
| Elongation index | 19 |

Sample Description : **5-10mm Crushed Aggregate**

Testing Date : **21/03/2022**

Tested by : **NKL**

Certificate of Sampling : Not given
Sample preparation method : BS 812 PART 102 : 1989
Test Specimen Preparation : BS 812 PART 105 : Sec.105.2 : 1990 Cls. 6
Test Method : BS 812 PART 105 : Sec.105.2 : 1990 Cls. 7
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-47
Revision No./Dt 04/20.05.2021 Page No.: 1 of 1



TEST REPORT

SHELL CONTENT IN COARSE AGGREGATE
BS 812 : PART 106 : 1985

Report Date : 29/03/2022

| | |
|--|--|
| Sample Number : SAG22-10097 | Report Number : RAG22-10097/4 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| Shell Content, % | |
|--------------------|------------------|
| Coarser than 10 mm | Finer Than 10 mm |
| Nil | Nil |

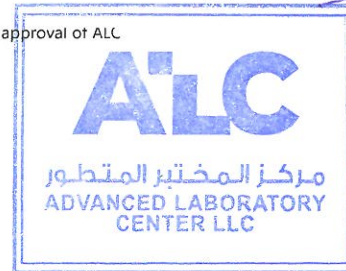
Sample Description : 5-10mm Crushed Aggregate
Testing Date : 28/03/2022
Tested by : NKL

Certificate of Sampling : Not Given
Sample preparation method : BS 812 PART 102 : 1989
Test Specimen Preparation : BS 812 : PART 106 : 1985 Cls. 5
Test Method : BS 812 : PART 106 : 1985 Cls. 6
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-44
Revision No./Dt 04/20.05.2021 Page No.: 1 of 1



TEST REPORT
SOUNDNESS OF AGGREGATE
ASTM C 88/C 88M : 2018

Report Date : 29/03/2022

| | |
|--|---|
| Sample Number : SAG22-10097 | Report Number : RAG22-10097/5 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |
| Specific gravity of Solution : 1.298 | Percentage material retained on 4.75 mm test sieve : 97 |
| Solution Used : MgSO ₄ | |
| Age of Solution : Fresh | Percentage material passing on 4.75 mm test sieve : 3 |
| Number of Cycles : 5 | |

Test Results :

| Test sieve size | Original grading of sample, Percent | Mass of test fraction before test, gram | Percentage passing designated sieve after test, Percent | Percent weight loss |
|-----------------------------------|-------------------------------------|---|---|---------------------|
| 63.0 mm - 37.5 mm | - | - | - | - |
| 37.5 mm - 19.0 mm | - | - | - | - |
| 19.0 mm - 9.5 mm | 11.8 | 330.0 | 4.2 | 0.5 |
| 9.5 mm - 4.75 mm | 77.0 | 300.1 | 1.6 | 1.2 |
| TOTAL OF COARSE AGGREGATES | | | | 2 |

| | | | | |
|---------------------------------|---|---|---|---|
| 9.5 mm - 4.75 mm | - | - | - | - |
| 4.75 mm - 2.36 mm | - | - | - | - |
| 2.36 mm - 1.18 mm | - | - | - | - |
| 1.18 mm - 0.600 mm | - | - | - | - |
| 0.600 mm - 0.300 mm | - | - | - | - |
| 300 µm minus | - | - | - | - |
| TOTAL OF FINE AGGREGATES | | | | |

QUALITATIVE EXAMINATION OF COARSE SIZE AGGREGATES

| Sieve size | No. of Particles Before Test | Splitting | | Crumbling | | Cracking | | Flaking | | No. of particles after test |
|-------------------|------------------------------|-----------|-----|-----------|-----|----------|-----|---------|-----|-----------------------------|
| | | No. | % | No. | % | No. | % | No. | % | |
| 37.5 mm - 19.0 mm | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | N/A |
| 19.0 - 9.5 mm | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | Nil | N/A |

| | |
|--|-----|
| Total percentage weight loss calculated against the initial grading: | N/A |
|--|-----|

Sample Description : 5-10mm Crushed Aggregate
Testing Date : 20/03/2022 to 26/03/2022
Tested by : NKL

Certificate of Sampling : Not given
Sample preparation method : ASTM C 702/C 702M : 2018
Test Specimen Preparation : ASTM C 88/C 88M : 2018 CLS. 8
Test Method : ASTM C 88/C 88M : 2018 CLS. 9
Test variation : None
Remarks : None

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC. The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-51
Revision No./Dt 06/17.06.2021 Page No.: 1 of 1

For Advanced Laboratory Center LLC



TEST REPORT

SPECIFIC GRAVITY AND WATER ABSORPTION OF COARSE AGGREGATE
ASTM C 127 : 2015

Report Date : 29/03/2022

| | |
|--|--|
| Sample Number : SAG22-10097 | Report Number : RAG22-10097/6 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| Specific Gravity, (oven dry basis) | Specific Gravity, (Saturated surface dry) | Aparent Relative Density, (apparent specific gravity) | Water Absorption, % |
|---------------------------------------|--|---|---------------------|
| 2.68 | 2.70 | 2.74 | 0.7 |

Sample Description : 5-10mm Crushed Aggregate
Testing Date : 22/03/2022 to 24/03/2022
Tested by : NKL

Certificate of Sampling : Not given
Sample preparation method : ASTM C 702/C 702M : 2018
Test Specimen Preparation : ASTM C 127 : 2015 CLS 7
Test Method : ASTM C 127 : 2015 CLS 8
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-57
Revision No./Dt 06/17.06.2021 Page No.: 1 of 1



TEST REPORT

RESISTANCE TO DEGRADATION OF SMALL SIZE COARSE AGGREGATES BY ABRASION AND IMPACT
IN LOS ANGELES MACHINE
ASTM C131/C131M - 20

Report Date : 29/03/2022

| | |
|--|--|
| Sample Number : SAG22-10097 | Report Number : RAG22-10097/7 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| | |
|--------------------------------|----|
| Loss by abrasion and impact, % | 21 |
|--------------------------------|----|

Sample Description : 5-10mm Crushed Aggregate
Grade designation : C
Testing Date : 24/03/2022
Tested by : NKL

Certificate of Sampling : Not given
Sample preparation method : ASTM C 702/C702M-18
Test Specimen Preparation : ASTM C131/C131M - 20 Cls 8
Test Method : ASTM C131/C131M - 20 Cls 9
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-53
Revision No./Dt 05/17.06.2021 Page No.: 1 of 1



TEST REPORT

CLAY LUMPS AND FRIABLE PARTICLES IN AGGREGATE

ASTM C 142/C 142M : 17

Report Date : 29/03/2022

| | |
|---|--|
| Sample Number : SAG22-10097 | Report Number : RAG22-10097/8 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC (M | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| Clay lumps & friable particles, % | |
|-----------------------------------|----------------|
| Coarse fraction | Fine fraction |
| 0.6 | Not applicable |

Sample Description : 5-10mm Crushed Aggregate
Testing Date : 22/03/2022 to 24/03/2022
Tested by : NKL

Certificate of Sampling : Not Given
Sample preparation method : ASTM C 702/C 702M : 2018
Test Specimen Preparation : ASTM C 142/C 142M : 2017 Cls.6
Test Method : ASTM C 142/C 142M : 2017 Cls.7
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-42
Revision No./Dt 05/17.06.2021 Page No.: 1 of 1



TEST REPORT

MATERIAL FINER THAN 75µm SIEVE BY WASHING

ASTM C117 : 1995

Report Date : 29/03/2022

| | |
|--|--|
| Sample Number : SAG22-10097 | Report Number : RAG22-10097/9 |
| Project Number : Not applicable | Plot No. : Not Given |
| Project Name : Internal Quality Checking | Sample Source : Steven Rock |
| Contractor : No Specific Contractor | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry LLC (Mansoor) | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18/03/2022/Not Given |
| Consultant : No Specific Consultant | Sampling Method : ASTM D75 |
| Client Ref./Req. No. : Not Given | Sample Delivered By : Client |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18/03/2022/16:00 Hrs |

Test Results :

| | |
|---|-----|
| Percentage of material finer than 75 µm sieve by washing, % | 0.9 |
|---|-----|

Sample Description : 5-10mm Crushed Aggregate

Test procedure : A

Testing Date : 21/03/2022

Tested by : NKL

Certificate of Sampling : Not given
Sample preparation method : ASTM C 702/C 702M : 2018
Test Specimen Preparation : ASTM C 117 : 1995 Cls. 6
Test Method : ASTM C 117 : 1995 Cls. 8
Test variation : None
Remarks : None

For Advanced Laboratory Center LLC

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested

Issue No./Dt 01/16.04.08 Form No.: AG-49
Revision No./Dt 05/17.06.2021 Page No.: 1 of 1



TEST REPORT

ACID SOLUBLE CHLORIDE AND ACID SOLUBLE SULPHATE
OF AGGREGATES

Report Date : 23-03-2022

| | |
|--|--|
| Sample Number : SCH22-10098 | Report Number : RCH22-10098/ 1 |
| Project Number : Not Applicable | Plot No. : Not Given |
| Project Name : Internal Quality Check | Sample Source : Steven Rock |
| Contractor : Not Applicable | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry-LLC (Macon) | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18-03-2022 / N.G |
| Consultant : Not Applicable | Sampling Method : Random |
| Client Ref./Req. No. : Not Given | Sample Delivered By : ALC Tech. |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18-03-2022/16:00 Hrs |

Test Results :

| Parameters | Percent mass of dried material |
|--|--------------------------------|
| Acid soluble chloride as Cl [*] | 0.02 |
| Acid soluble sulphate as SO ₃ ²⁻ | 0.05 |

Sample Description : 5-10mm Crushed Aggregate

Testing Date : 19-03-2022 to 22-03-2022

Tested by : DKP

| | |
|---------------------------|--|
| Sample preparation method | : BS 812 PART 102 : 1989 |
| Test Specimen Preparation | : ACID SOLUBLE CHLORIDE : BS 812 PART 118 : 1988, CLS. 6.3 : ACID SOLUBLE SULPHATE : BS 812 PART 118 : 1988, CLS. 6.3 |
| Test Method | : ACID SOLUBLE CHLORIDE : BS 812 PART 117 : 1988, APPENDIX C : ACID SOLUBLE SULPHATE : BS 812 PART 118 : 1988, CLS. 6.4 |
| Test variation | : None |
| Remarks | : None |

*Not accredited by EIAC.

for Advanced Laboratory Center



[Signature]

This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested.

Issue No./Dt 01/14.04.08 Form No.: CH-15

Revision No./Dt 02/20.05.2021 Page No.: 1 of 1

MATERIALS | METALLURGY | GEOTECHNICAL | CHEMISTRY & LIFE SCIENCES | ENVIRONMENTAL | SPECIAL PRODUCTS

TEST REPORT

ORGANIC IMPURITIES OF FINE AGGREGATES

Report Date : 23-03-2022

| | |
|--|--|
| Sample Number : SCH22-10098 | Report Number : RCH22-10098/ 2 |
| Project Number : Not Applicable | Plot No. : Not Given |
| Project Name : Internal Quality Check | Sample Source : Steven Rock |
| Contractor : Not Applicable | Sample Location : Macon Yard |
| Project Client : Mansoor Concrete Block Industry-LLC (Macon) | Sampled By : Client |
| Project Location : Jebel Ali, Dubai, UAE | Sampling Date/Time : 18-03-2022 / N.G |
| Consultant : Not Applicable | Sampling Method : Random |
| Client Ref./Req. No. : Not Given | Sample Delivered By : ALC Tech. |
| Sample Size : Approximately 50 kg | Sample Received Date/Time : 18-03-2022/16:00 Hrs |

Test Result :

| Parameter | Result |
|--------------------|---|
| Organic Impurities | The color of supernatant liquid of the test sample was lighter than the standard color solution |

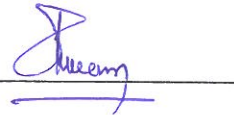
Sample Description : 5-10mm Crushed Aggregate

Testing Date : 21-03-2022 to 22-03-2022

Tested by : DKP

Sample preparation method : ASTM C 702 : 1998
Test Specimen Preparation : ASTM C 40/40M : 2011
Test Method : ASTM C 40/C 40M : 2011 Cls. 8 & 9.1
Test variation : None
Remarks : None

for Advanced Laboratory Center



This report relates only to the sample tested and shall not be reproduced except in full, without written approval of ALC.
The sample will be retained for a period of one month. Unless otherwise requested.

Issue No./Dt 01/20.05.2021 Form No.: CH-15C

Revision No./Dt 0/- Page No.: 1 of 1



MATERIALS | METALLURGY | GEOTECHNICAL | CHEMISTRY & LIFE SCIENCES | ENVIRONMENTAL | SPECIAL PRODUCTS



CEMENT CERTIFICATES



شركة الإسمنت الوطنية ش.م.ع.
National Cement Co. p.s.c.

DO NO : 80883599

DATE : 28.09.2020

CEMENT TEST CERTIFICATE

CEMENT TYPE : SULPHATE RESISTING PORTLAND CEMENT
COMPLYING WITH BS:4027/1996 - STRENGTH CLASS 42.5N-LA
WEEKLY PRODUCTION: (05.09.2020 - 11.09.2020)

I. CHEMICAL COMPOSITION

| CHARACTERISTICS | UNIT | REQUIREMENTS | | VALUE OBTAINED |
|--|------|--------------|-------------|----------------|
| | | LOWER LIMIT | UPPER LIMIT | |
| LOSS ON IGNITION (LOI) | % | N.S. | 3.00 | 2.82 |
| INSOLUBLE RESIDUE | % | N.S. | 1.50 | 0.32 |
| SULPHATE (EXPRESSED AS SO ₃) | % | N.S. | 2.50 | 2.20 |
| CHLORIDE CONTENT | % | N.S. | 0.10 | 0.05 |
| TOTAL ALKALI (NA ₂ O+0.658K ₂ O) | % | N.S. | 0.60 | 0.57 |
| TRICALCIUM ALUMINATE "C3A" | % | N.S. | 3.50 | 2.86 |
| CLINKER ANALYSIS: | | | | |
| SILICON DIOXIDE (SiO ₂) | % | N.S. | N.S. | 21.94 |
| ALUMINIUM TRIOXIDE (AL ₂ O ₃) | % | N.S. | N.S. | 4.14 |
| FERRIC OXIDE (FE ₂ O ₃) | % | N.S. | N.S. | 4.65 |
| CALCIUM OXIDE (CaO) | % | N.S. | N.S. | 65.86 |
| MAGNESIUM OXIDE (MgO) | % | N.S. | 5.00 | 1.42 |

II. PHYSICAL TESTS

| | | | | |
|---|--------------------|---------------|--------------|------------------|
| FINENESS: SPECIFIC SURFACE AIR PERMEABILITY TEST (BLAIN TEST) | M ² /KG | N.S. | N.S. | 316.00 |
| SOUNDNESS: LE-CHATELIER EXPANSION TEST | mm | N.S. | 10.00 | 0.50 |
| SETTING TIME: <u>VICAT TEST</u> INITIAL SETTING TIME FINAL SETTING TIME | min min | 60.00 N.S. | N.S. N.S. | 165.00 230.00 |
| STRENGTH: (MORTAR PRISMS) COMPRESSIVE STRENGTH | | | | |
| 7 DAYS | N/mm ² | N.S. | N.S. | 42.60 |
| 28 DAYS ON DATE (15.08.2020 - 21.08.2020) | N/mm ² | 42.50 | 62.50 | 54.00 |

We certify that the cement is from fresh stock, newly manufactured and complies from the chemical and physical points of view with BS:4027/1996.

Date: 21.09.2020

Form: WLF-10G DT.1.1.96 Rev.0
Distribution : SM/CUSTOMER
File: CWL/SM


(MOHAMED MAJD NOUH)
WORKS MANAGER

Commercial Registration No. 41150
Vat Registration No. 100025345800003
Authorised and paid up Share Capital
A E D 3 5 8 , 8 0 0 , 0 0 0
P.O. Box 4041 Dubai - United Arab Emirates
Tel.: +971-4-3388885, Fax: +971-4-3388886



E-mail: cement@nationalcement.ae

سجل تجاري رقم ٤١١٥٠
رقم الضريبة القيمة المضافة: ١٠٠٠٢٥٣٤٥٨٠٠٠٠٣
راس المال المصرح به والمدفوع ٣٥٨,٨٠٠,٠٠٠ درهم
ص.ب: ٤٠٤١ دبي - الإمارات العربية المتحدة
هاتف: ٣٣٨٨٨٨٥-٤-٩٧١, فاكس: ٣٣٨٨٨٨٦-٤-٩٧١