


 GOVERNMENT OF DUBAI	<b>Organization/Unit:</b>	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:	 بلدية دبي Dubai Municipality
	<b>Document Title:</b>	<b>Certification of Factory Made Mineral Wool  Thermal Insulation as per BS EN 13162 +  A1:2015</b>	عنوان الوثيقة:	
	<b>Doc Ref.</b>	<b>DM-DCLD-RD-DP21-2130 (IC)</b>	رقم الوثيقة :	

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Issue Date	Rev. No.	Summary Of Amendments
15-07-2006	0	First draft for comments
22-07-2006	0	Final draft
25-07-2006	1	Issue for use
09-08-2009	2	Reviewed with the requirements of the current version of the standard and found to be still suitable. Document reference number and format is changed according to the new IMS, statement for the independent testing plan was changed, and the statement for surveillance was shortened by referring the appropriate procedure, RD-DP21-2096 (IC).
27/05/2014	3	Reviewed with the requirements of the current version of the standard and made some amendments, including the format.
19/07/2017	4	Revised to align with the fire test requirements of the UAE Fire & Life Safety Code of Practice. 2016. Removed version of ISO 9001 Standard for QMS requirements. Changed the format of the whole Specific Rule. Added Annex A.
08/11/2018	5	Reviewed as per the fire test requirements with the UAE Fire and Life Safety Code of Practice 2018, and found to be still the same. Change the format of documents.
21/03/2019	6	Revision of Scope to reflect that the DCL Certification of above subject product does not cover compliance to the requirements of UAE Fire & Life Safety Code of Practice 2018.
11/05/2020	7	Revised with the requirements of the current updated version of the standard. Added sound absorption requirements (if declared). In addition to some editorial changes as per the new numbering Scheme and terminologies.
26/09/2021	8	Removal of the documents in clause 2.1.2, in addition to addition of provision for accepting valid test reports (clause 2.4.3.4), in line with DM 30% reduction of requirements (both service and specialized). Modifications in the auditing part for the factories already certified against ISO 9001 to opt for auditing only the areas of production and monitoring stages of product realization, quality control and final product testing and evaluation
04-10-2022	9	Changing section name as per the new organizational structure, and replace HOU by CQPSM (Section's Manager), PCAS by CQPS (Certification and Quality Control of Products Section).
27-03-2023	10	Full re-structuring and transfer of common provisions to the general rule. Clauses are re-numbered and document title has been revised accordingly. Adding reference to SA'AFAT relevant section under additional references. Use of New DM Logo

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## 1. INTRODUCTION

- 1.1 This document prescribes the specific rule for certification of the product(s) as identified herein, in accordance with the requirements of DM Third Party Product Certification Scheme Through Factory Assessment, taking into consideration the applicable normative references and standard specification, in addition to the requirements for conformity evaluation, as stated below.
- 1.2 The applicant/client shall comply with this specific rule, and to all provisions under the **“General Rule for DM Third Party Product Certification Scheme Through Factory Assessment”DM-DCLD-RD-DP21-2001 (IC)**.
- 1.3 This specific rule **is an integral part of the general rule** and both shall always be read together.

## 2. SCOPE



- 2.1 This specific rule specifies the requirements for factory made mineral wool thermal insulation materials for walls and roofs with a minimum thickness required achieving a U value in accordance with relevant DM Regulation/s.
- 2.2 This specific rule does not -by itself- permit the use of the below product in the construction sites. However, it does provide the necessary general conformity assessment criteria, which are required for the evaluation and issuance of the certification and the authorization of the use of the DCLD Conformity Mark. Other relevant requirements issued by the regulatory bodies if any; shall always be fulfilled.

## 3 PRODUCT IDENTIFICATION AND APPLICABLE STANDARD/NORMATIVE REFERENCE

- 3.1 Product name: Thermal insulation products for buildings – Factory Made Mineral Wool Thermal Insulation
- 3.2 Applicable standard/Normative reference: BS EN 13162:2012 +A1: 2015 Thermal insulation products for buildings – Factory made mineral wool (MW) products – Specification
- 3.3 Additional reference:
- ISO 9001 Quality Management System – Requirements
- ISO 19011 Guidelines for Auditing Management Systems
- ASTM C 518, Thermal transmission properties by heat flow meter
- ASTM C 177, Thermal transmission properties by guarded hot plate
- ASTM E 96, Water vapor transmission of materials.

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Al Sa'fat – Dubai Green Building System-2nd edition, January 2023 – Section 701.01 (Thermal and Acoustical Insulation Materials).

#### 4 DEFINITION OF TERMS

4.1 In addition to the definitions given in BS EN 13162 and the General Rule of the scheme [DM-DCLD-RD-DP21-2001 (IC)], the following shall apply:-

4.1.1 Standard Specification – BS EN 13162:2012 +A1: 2015 Thermal insulation products for buildings – Factory made mineral wool (MW) products – Specification.

#### 5 REQUIREMENTS FOR INITIAL CERTIFICATION

5.1 The process of application, initial assessment and product sampling shall be in line with the related provisions in the general rule and the standard specifications.

5.2 The factory shall have a laboratory with the following testing equipment as a minimum:

- Weighing Scale.
- Length, width, thickness measuring test equipment.
- Squareness and flatness measuring test equipment.
- Density measuring test equipment.

5.3 Product Evaluation and testing

5.3.1 Company Declaration

The client shall submit to DCLD-CQPS an official declaration of product specification subject for certification. This shall include but not limited to:-

- Thermal resistance and thermal conductivity
- Length and width
- Thickness
- Compressive strength or compressive stress
- Tensile strength perpendicular to faces
- Dimensional Stability
- Water Vapor Transmission (*if to be declared*)
- Point Load
- Density
- Sound Absorption (if declared or if DCL Attestation is applied/issued).

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### 5.3.2 Factory Production Control Scheme (Internal Product Quality Assurance Plan)

The client shall have an internal product quality assurance plan giving details of the tests to be carried out at the factory. It shall consist and comply with the requirements as per below:

SR#	INSULATION PROPERTY	MINIMUM TESTING FREQUENCIES
1	Thermal Resistance and Thermal Conductivity	1 per 3 mos. for each product and indirect (Table B.1 of Annex B of SS)
2	Length and Width	1 per 2 h
3	Thickness	1 per 2 h
4	Squareness	1 per 2 h
5	Flatness	1 per 8 h
6	Dimensional Stability	1 per 5 years
7	Compressive Strength	1 per 8 h and indirect (Table B.1 of Annex B of SS)
8	Tensile strength perpendicular to faces	1 per 8 h and indirect (Table B.1 of Annex B of SS)
9	Point Load	1 per 5 years
10	Water Absorption	1 per month and indirect (Table B.1 of Annex B of SS)
11	Water Vapor Transmission	1 per year
12	Sound Absorption (if declared)	1 per 5 years

Note: Item No.1 , 7 and 8 may be reduced to once per month provided that the results show continuing compliance to the declared value.

### 5.3.3 Testing & Evaluation

5.3.3.1 Samples drawn for independent test shall meet the requirements of the Standard Specification (SS) as follows:

#### 5.3.3.1.1 Thermal Resistance and Thermal Conductivity as per SS clause 4.2.1

Note: 1. Since BS EN 12667 or BS EN 12939 (for thick products) test method for thermal resistance and thermal conductivity, is equivalent to the ASTM C 518, ASTM C 177, ISO 8301 and ISO 8302, these test methods are also accepted.

Note: 2. Temperature condition to be used in carrying out this test will be as per Dubai requirement, that is @ 35°C and 60% Relative Humidity and the reference mean temperature is 35°C.

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- 5.3.3.1.2 Length and Width as per (SS) clause 4.2.2
- 5.3.3.1.3 Thickness as per (SS) clause 4.2.3
- 5.3.3.1.4 Squareness as per (SS) clause 4.2.4
- 5.3.3.1.5 Flatness as per (SS) clause 4.2.5
- 5.3.3.1.6 Dimensional Stability as per (SS) clause 4.3.2
- 5.3.3.1.7 Compressive Strength as per (SS) clause 4.3.3
- 5.3.3.1.8 Tensile Strength perpendicular to faces as per (SS) 4.3.4
- 5.3.3.1.9 Point Load as per (SS) 4.3.5
- 5.3.3.1.10 Water Absorption as per (SS) 4.3.7
- 5.3.3.1.11 Density (if declared) as per applicable standard test method
- 5.3.3.1.12 Water Vapor transmission as per (SS) 4.3.8 (if declared)

Note: Since BS EN 12086 test method for water vapor transmission, is equivalent to that of the ASTM E 96, the DM Certification Body shall use this test method

- 5.3.3.1.13 Sound Absorption as per (SS) clause 4.3.11 (if declared)

Note: If DCL attestation is applied/issued, or if there is a test report (validity of 3 years from issue date) issued by other accredited and DM Certification Body recognized testing laboratory and sampled by accredited/DM Certification Body recognized CAB, then no need to conduct the test.

- 5.3.3.2 The results of testing must meet the requirements as per the standard specification.

- 5.3.4 If Mineral Fiber Block and Board Thermal Insulations are to be supplied with facings that are to be used as vapor barrier, these facings shall have documented evidence of compliance in accordance with ASTM C1136. Factories shall declare in writing that their facing is to be used as vapor barriers, if it is really intended to be one.

## 6 GRANTING OF THE DCLD CERTIFICATION

- 6.1 The DCLD product conformity certificate and the authorization to use the DCLD conformity mark shall be granted upon conformance with all related provisions in the general rule.
- 6.2 Fees shall be as per DM-DCLD-RD-DP21-2097 (IC) and other relevant provisions in the general rule.
- 6.3 DCLD-CQPS shall carry out surveillance of certified clients based on the approved periodic plans and related provisions in the general rule.
- 6.4 Appeals, disputes and complaints shall be in line with the relevant provisions in the General Rule.

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