

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

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

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1. GENERAL

1.1 INTRODUCTION

- 1.1.1 This document prescribes the specific rules for the implementation of the DM Third Party Product Certification Scheme through factory assessment as applied to the specific product(s) identified herein, taking into consideration the applicable normative references and standard specifications.
- 1.1.2 The applicant shall comply with these specific rules, and with those already mentioned in the “General Rules for DM Third Party Product Certification Scheme Through Factory Assessment, DM-DCLD-RD-DP21-2001 (IC).
- 1.1.3 The Certification Body shall take into consideration the requirements of Administrative Order 66-2003 on Regulations on Technical Specifications for Thermal Insulation Schemes. Only products that are deemed to meet the requirements of this Order shall be certified.

1.2 SCOPE

- 1.2.1 This specific rule applies only to 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.
- 1.2.2 This specific rule does not cover compliance to the requirements of UAE Fire & Life Safety Code of Practice 2018.
- 1.2.3 For certification of Factory Made Mineral Wool Thermal Insulation compliance to the requirements of UAE Fire & Life Safe Code of Practice 2018, the Specific Rules DM-DCLD-RD-DP21-2210 (IC) shall apply.

1.3 PRODUCT IDENTIFICATION AND APPLICABLE STANDARD/NORMATIVE REFERENCE

- 1.3.1 Product name: Thermal insulation products for buildings – Factory Made Mineral Wool Thermal Insulation
- 1.3.2 Applicable standard/Normative reference: BS EN 13162:2012 +A1: 2015 Thermal insulation products for buildings – Factory made mineral wool (MW) products – Specification

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1.3.3 Additional reference:

- 1.3.3.1 ASTM C 518, Thermal transmission properties by heat flow meter
- 1.3.3.2 ASTM C 177, Thermal transmission properties by guarded hot plate
- 1.3.3.3 ASTM E 96, Water vapor transmission of materials
- 1.3.3.4 ISO 9001, Quality Management Scheme – Requirements
- 1.3.3.5 ISO 19011, Guidelines for Auditing Management Systems

1.4 DEFINITION OF TERMS

In addition to the definitions given in BS EN 13162:2012 +A1: 2015, DM-DCLD-RD-DP21-2001 (IC), the following shall also apply:

- 1.4.1 Independent Testing Laboratory - Dubai Central Laboratory (DCL) or any testing laboratory recognized by the DM Certification Body.
- 1.4.2 Independent Test – test performed or conducted by an Independent Testing Laboratory
- 1.4.3 Standard Specification (SS) – BS EN 13162:2012 +A1: 2015 Thermal Insulation Products for Buildings – Factory Made Mineral Wool (MW) products - Specification
- 1.4.4 Product Quality Assurance Plan – a document being agreed upon both by the certified client and the certification body being used to ensure continuous compliance of the certified product.
- 1.4.5 QMS – Quality Management Scheme aligned with the requirements of ISO 9001 Standard
- 1.4.6 Client : Manufacturer/producer of thermal insulation for buildings – Factory made Mineral Wool (MW) products
- 1.4.7 DM Certification Body – Products Conformity Assessment Section- Dubai Central Laboratory (DCLD-PCAS)

2. REQUIREMENTS FOR CERTIFICATION

2.1 APPLICATION

- 2.1.1 The client shall apply to DCLD-PCAS for the certification and authorization to use of DCL Conformity Mark.
- 2.1.2 Application form (DM-DCLD-F-IC-2001) shall be submitted to DCLD-PCAS together with the required documents as mentioned in the Application Form.

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2.1.3 Separate application shall be submitted for each product type or group of products that refers to a different specific rules.

2.2 FACTORY OPERATION

2.2.1 Quality Management Scheme

The client shall have a Quality Management Scheme that is aligned to the requirements of ISO 9001 standard.

NOTE: Certification to ISO 9001 is not a mandatory requirement.

2.2.2 Laboratory

The client shall have a quality assurance laboratory to carry out factory production control testing to ensure that the thermal insulation materials comply with the requirements of the standard specification.

The laboratory can be part of the factory facilities, or, can be through a documented agreement with an accredited external laboratory.

As a minimum requirement, the laboratory shall have the following testing facility to check the following properties:

- Length, width, thickness
- Squareness and flatness
- Density

2.3 INITIAL FACTORY AUDIT

2.3.1 DCLD-PCAS duly authorized representative shall conduct an audit of the factory quality management scheme to verify its compliance with the requirements of ISO 9001.

NOTE: An independent certification to ISO 9001 issued by a QMS certification body recognized by DCLD-PCAS may be considered as having satisfied this requirement; however, DCLD-PCAS reserves the right to carry out

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verification audit to confirm that the factory is in compliance with the QMS requirements.

2.3.2 Verification audit shall be conducted by designated audit team based on ISO 19011 – Guidelines for Auditing Management Systems.

2.4 PRODUCT EVALUATION

2.4.1 Company Declaration

2.4.1.1 The client shall submit to DCLD-PCAS 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)

2.4.2 Sampling

2.4.2.1 Sample for the initial testing shall be taken randomly by DCLD-PCAS duly authorized representative from products identified as conforming to the product standard (finished products ready for delivery).

2.4.2.2 Three sets of sample per product type shall be subjected to testing; the first set, if applicable, will be tested in the plant witnessed by a duly authorized DCLD-PCAS representative, the second set shall be sent to DCLD-PCAS approved Independent Testing Laboratory while the third set will be kept by the manufacturer as reference for future use.

2.4.2.3 Test sample(s) for independent test shall be packed/sealed and signed in the presence of DCLD-PCAS

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duly authorized representative and shall be submitted to an approved DCLD-PCAS Independent Testing Laboratory.

2.4.3 Testing & Evaluation

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

2.4.3.1.1 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, DCLD-PCAS may opt to use any of these test methods.

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

2.4.3.1.2 Length and Width as per (SS) clause 4.2.2

2.4.3.1.3 Thickness as per (SS) clause 4.2.3

2.4.3.1.4 Squareness as per (SS) clause 4.2.4

2.4.3.1.5 Flatness as per (SS) clause 4.2.5

2.4.3.1.6 Dimensional Stability as per (SS) clause 4.3.2

2.4.3.1.7 Compressive Strength as per (SS) clause 4.3.3

2.4.3.1.8 Tensile Strength perpendicular to faces as per (SS) 4.3.4

2.4.3.1.9 Point Load as per (SS) 4.3.5

2.4.3.1.10 Water Absorption as per (SS) 4.3.7

2.4.3.1.11 Density (if declared) as per applicable standard test method

2.4.3.1.12 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 may opt to use this test method

2.4.3.1.13 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 DCLD-PCAS recognized testing laboratory and sampled by accredited/DCLD-PCAS recognized CAB, then no need to conduct the test.

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2.4.3.2 Where appropriate, a comparison shall be made between the manufacturer's routine test results, results of witness testing and the results of testing by the independent testing laboratory.

2.4.3.3 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.

2.4.3.4 Independent test shall only be conducted if the result of the in-plant test shows satisfactory result.

2.4.3.5 If the result of the test conducted by the independent testing laboratory shows non-conformance to the specified requirements, the provision for rejection specified in the standard shall apply. The retest shall be carried out on the reference sample kept by the manufacturer or on new samples collected by DCLD-PCAS authorized representative, on which full testing shall be carried out ,if necessary.

2.4.3.6 If the re-test passed, the initial product assessment is considered conforming to product specification. If not, the manufacturer will be advised to take corrective action.

2.4.3.7 Only after reassessment and subsequent product compliance shall the manufacturer be allowed to use DCL Conformity Mark on the product(s) which found complying with the certification requirements.

3. GRANTING OF THE DCL CERTIFICATE OF CONFORMITY

3.1 CONDITIONS FOR GRANTING THE DCL CERTIFICATE OF CONFORMITY

3.1.1 When the results of the factory audit (clause 2.3) and product evaluation (clause 2.4) show conformity to the requirements specified in the General Rule and Specific Rule, the Certificate of Conformity and authorization to use the DCL Conformity Mark shall be issued to the client for the type(s) and size of the product tested.

3.1.2 The client shall agree with DCLD-PCAS for the preparation and implementation of a product quality assurance plan to ensure continuing compliance with the Standard Specifications and the requirements of this certification scheme. It shall consist of (1) an internal product quality assurance plan, and (2) an independent testing plan.

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3.1.3 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. This will include as a minimum, the following details: (1) location of sampling; (2) frequency of sampling; (3) quantities of samples; (4) tests to be carried out; (5) results acceptance criteria; and (6) responsible person to carry out the activity.

The plan shall take into consideration the production process, the volume of production, the criticality of the test to be specified, and other relevant factors. ; it shall consist and comply with the requirements as per below:

	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.

3.1.4 Independent testing plan

The client shall agree to an independent testing plan to be carried out on samples which are collected

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in accordance with DM-DCLD-RD-DP21-2096 (IC) – Surveillance of Certified Establishments under the Factory Assessment Scheme, and implemented by DCLD-PCAS. The cost of testing under the independent testing plan shall be borne by the client.

3.2 ISSUANCE OF DCL CERTIFICATE OF CONFORMITY

If the conditions mentioned in clause 3.1 above have been complied, the manufacturer of factory made mineral wool products thermal insulation materials shall be issued a DCL Certificate of Conformity and a Scope of Certification that covers the type(s) and size of the products that are certified. The client shall be authorized to use the DCL Conformity Mark on the certified products.

3.2 RESPONSIBILITIES OF THE CLIENT

- 3.2.1 The client shall ensure that his product, for which a certificate of conformity has been issued, conforms at all times to the requirements of the General Rule and Specific Rules and shall maintain to the satisfaction of DCLD-PCAS, a system of quality control including inspection and testing.
- 3.2.2 The client shall give the duly authorized representative(s) of DCLD-PCAS, access during working hours, without prior notification, to the premises of the factory where certified product is manufactured, for the purpose of evaluating the materials, production processes, finished products, quality assurance facilities, records and others in accordance with the requirements of the scheme.
- 3.2.3 The client shall inform the DCLD-PCAS in writing of any change of management, transfer of plant site, modification in the product, manufacturing process or factory quality management Scheme.
- 3.2.4 In case of transfer of factory location, the certificate, the certificate of conformity shall be deemed valid only after factory and product audit at the new site has been satisfactorily completed.
- 3.2.5 Any violation of the Terms and Conditions of the certification scheme shall constitute sufficient grounds for suspension, withdrawal and termination of certification in accordance with DM-DCLD-IMS-RD-07.
- 3.2.6 Any dispute that may arise in connection with the Terms and Conditions of the certification scheme shall be settled in accordance with DM-DCLD-IMS-RD-08 Appeals, Disputes, and Complaints Procedure.

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3.3.7 The client shall pay all applicable fees related to the certification process.

3.4 USE OF THE DCL CONFORMITY MARK

3.4.1 The design and use of the DCL Conformity Mark shall be in accordance with the Terms and Conditions for the Use of the DCL Conformity Mark, DM-DCLD-IMS-RD-13.

3.4.2 The client shall submit a product-marking proposal for approval by the DCLD-PCAS. The proposal shall include drawings and/or diagrams showing the location and size of the marking for each size of the product/product package/container.

3.4.3 The Certificate of Conformity and the authorization to use the DCL Certification Mark is non-transferable.

4. SURVEILLANCE

4.1 DCLD-PCAS or their approved CAB shall carry out periodic surveillance to ensure consistent compliance with the requirements of this certification scheme as per DM-DCLD-RD-DP21-2096 (IC) – Surveillance of Certified Establishments under the Factory Assessment Scheme.

4.2 Testing as part of surveillance shall be in accordance with the Independent Testing Plan (clause 3.1.4) that has been agreed between the DCLD and the factory.

5. FEE SCHEDULE

5.1 The client shall pay the applicable fees and charges related to the granting of the Certificate of Conformity to use the DCL Conformity Mark based on the DCL Official Fee Structure, DM-DCLD-RD-DP21-2097 (IC).

5.2 The fees for this certification scheme shall include but not limited to the following;

- 5.2.1 Application Fee
- 5.2.2 Initial Assessment Fee
- 5.2.3 Certification Fee
- 5.2.4 Marking Fee
- 5.2.5 Surveillance Fee
- 5.2.6 Annual Renewal Fee
- 5.2.7 Testing Fee
- 5.2.8 CABs Fees as applicable

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