

 GOVERNMENT OF DUBAI	Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية: 	 بلدية دبي Dubai Municipality
	Document Title: Certification of Cellular Glass Thermal Insulation as per BS EN 13167:2012 +A1-2015	عنوان الوثيقة: 	
	Doc Ref. DM-DCLD-RD-DP21-2110 (IC)	رقم الوثيقة : 	

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Issue Date	Rev. No.	Summary Of Amendments
27-02-2005	0	First draft for comments
12-04-2005	0	Final draft
18-04-2005	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.
16-07-2017	4	Amendment to align the fire test requirement with the UAE Fire and Life Safety Code of Practice 2016, Provision for once every 3 years fire test in the Factory Production Control System (Internal Product Quality Assurance Plan), Revised Format according to the latest template.
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.
26-04-2020	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 system and terminologies.
06-09-2020	8	Revised to add the options for initial audit by the approved CAB and remotely by PCAS. Adding definition for authorized auditor. Update for the new numbering system and followed terminologies. Add provision for accepting valid test reports.
26/09/2021	9	Removal of the documents in clause 2.1.2, in addition to further amendment in the provision for accepting valid test reports (clause 2.4.3.5), 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	10	Changing section name as per the new organizational structure, and replace HOU by CQPSM (Section's Manager)
27-03-2023	11	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 cellular glass products, with or without facing, which are used for the thermal insulation of buildings. The products are manufactured in the form of slabs or boards.
- 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 Cellular Glass (CG) Products
- 3.2 Applicable standard/Normative reference: BS EN 13167:2012 + A1-2015 Thermal insulation products for Buildings – Factory made cellular glass (CG) products - Specification
- 3.3 Additional reference:
- ISO 9001 Quality Management System – Requirements
- ISO 19011 Guidelines for Auditing Management Systems
- Al Sa'fat – Dubai Green Building System-2nd edition, January 2023 – Section 701.01 (Thermal and Acoustical Insulation Materials).

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4 DEFINITION OF TERMS

4.1 In addition to the definitions given in EN ISO 9229, BS EN 13167:2012 +A1-2015 and the General Rule of the scheme [DM-DCLD-RD-DP21-2001 (IC)], the following shall apply:-

4.1.1 Standard Specification – BS EN 13167:2012 + A1-2015 Thermal insulation products for Buildings –
Factory made cellular glass (CG) 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:

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

5.3 Product Evaluation and testing

5.3.1 Company Declaration/ Internal Product Production Control Plan

5.3.1.1 The manufacturer/applicant shall submit to Dubai Central Laboratory declaration of product specification subject for certification and the designation code as per (SS) clause 6. This shall include but not limited to:

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

5.3.1.2 The manufacturer/applicant shall have an internal product quality assurance plan giving details of the tests to be carried out at the factory. The plan shall take into consideration the production process, the volume of

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production, the criticality of the test to be specified, and other relevant factors; it shall consist and comply with the requirements as per below:

SR/N	INSULATION PROPERTY	MINIMUM TESTING FREQUENCIES
1	Thermal Resistance and Thermal Conductivity	1 per 24 h
2	Length and Width	1 per 4 h
3	Thickness	1 per 4 h
4	Squareness	1 per 4 h
5	Flatness	1 per 4 h
6	Dimensional Stability	1 per 5 years
7	Compressive Strength	1 per 8 h
8	Tensile strength parallel to faces	1 per 5 years
9	Tensile strength perpendicular to faces	1 per 5 years
10	Bending Strength	1 per year
11	Point Load	1 per 8 h
12	Water Absorption	1 per 5 years
13	Water Vapor Transmission	1 per 5 years
14	Sound Absorption (if declared)	1 per 5 years

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

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

5.3.2.1 Thermal Resistance and Thermal Conductivity as per (SS) clause 4.2.1

Note1 : . 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, the DM Certification Body may opt to use any of these test methods.

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

5.3.2.2 Length and Width as per (SS) clause 4.2.2

5.3.2.3 Thickness as per (SS) clause 4.2.3

5.3.2.4 Squareness as per (SS) clause 4.2.4

5.3.2.5 Flatness as per (SS) clause 4.2.5

5.3.2.6 Dimensional Stability as per (SS) clause 4.3.2

5.3.2.7 Compressive Strength as per (SS) clause 4.3.3

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5.3.2.8 Bending Strength as per (SS) clause 4.3.4

5.3.2.9 Point Load as per (SS) clause 4.3.5

5.3.2.10 Tensile Strength parallel to faces as per (SS) clause 4.3.6

5.3.2.11 Tensile Strength perpendicular to faces as per (SS) clause 4.3.7

5.3.2.12 Water Absorption as per (SS) clause 4.3.9

5.3.2.13 Water Vapor transmission as per (SS) clause 4.3.10

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.

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

5.3.2.15 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.

5.3.2.16 If facing are applied, faced boards shall only be tested for dimensions, squareness, flatness, compressive strength, and thermal conductivity test as per clause 5.3.2.

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

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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