



**Specific Rules for Certification of Cellular Glass Thermal Insulation
(As Per BS EN 13167:2008) Through Factory Assessment
Dubai Central Laboratory- Inspection And Certification Section**

Doc. Ref :RD-DP21-2110 (IC)

Rev. No.: 2

Issue Date :09/08/2009

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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).

Prepared by

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1. INTRODUCTION

1.1 This document prescribes the specific rules for the implementation of the DM Third Party Product Certification System Through Factory Assessment as applied to the specific product(s) identified herein, taking into consideration the applicable normative references and standard specifications.

1.2 The applicant shall comply with these specific rules, **and** to those already mentioned in the "General Rules for DM Third Party Product Certification System Through Factory Assessment" **{RD-DP21-2001 (IC)}**.

2. SCOPE

2.1 This specific rule covers 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.

3. PRODUCT IDENTIFICATION AND APPLICABLE STANDARD/NORMATIVE REFERENCE

3.1 Product Name: Cellular Glass Thermal Insulation Products

3.2 Applicable standard/Normative reference: **BS EN 13167:2008** Thermal insulation products for Buildings – Factory made cellular glass (CG) products - Specification

3.3 Additional references:

2.3.1 **ISO 9001:2008** - Quality Management System –Requirements

2.3.2 **ISO 19011:2002** - Guidelines for Quality and Environmental Management System Auditing

4. DEFINITION OF TERMS

In addition to the definitions given in **BS EN 13167:2008**, **RD-DP21-2001(IC)** and other reference standards, the following shall also apply:

4.1 Independent Testing Laboratory - Dubai Central Laboratory Department or any testing laboratory recognized by the DM Certification Body.

4.2 Standard Specification – **BS EN 13167:2008** Thermal insulation products for Buildings – Factory made cellular glass (CG) products - Specification

4.3 Product Quality Assurance Plan – a document being agreed upon both by the Licensee and the certification body being used to ensure continuous compliance of the certified product.

4.4 QMS – Quality Management System aligned with the requirements of **ISO 9001:2008** Standard

5. APPLICATION

5.1 Manufacturer of cellular glass thermal insulation shall apply to Dubai Central Laboratory through Inspection and Certification Unit for the license to use the DCL Conformity Mark.

5.2 Application forms shall be filled-up by the applicant-company together with the following documents
5.2.1 Trade License

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- 5.2.2 Complete product description and specifications
- 5.2.3 Brief Description of Manufacturing Process
- 5.2.4 Copy of the Quality Manual (Controlled Copy)
- 5.2.5 Vicinity Map and Factory Layout
- 5.2.6 Valid Certification to ISO 9001 (if available)
- 5.2.7 List of key personnel and their designation

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

6. REQUIREMENTS FOR INITIAL FACTORY ASSESSMENT

- 6.1 DCL duly authorized representative shall visit the applicant's factory/plant with the aim of ascertaining that the factory's quality management system is in accordance with the requirements of ISO 9001: 2008
- 6.2 An independent certification to ISO 9001 issued by a QMS certification body recognized by DM shall be considered as having satisfied this requirement; however, the DM Certification Body will still carry out verification audit to confirm that the factory is in compliance with the QMS requirements.
- 6.3 Verification audit shall be conducted by designated audit team based on ISO 19011:2002 – Guidelines for Quality and Environment Management System Auditing

7. REQUIREMENTS FOR INITIAL TESTING OF THE PRODUCT

7.1 Sampling

- 7.1.1 Sampling shall be carried out in accordance with section 5.1 of BS EN 13167:2008. Lot size shall be determined and a random sample shall be taken either from the production or warehouse
- 7.1.2 Three sets of sample per product per type shall be subjected to testing; the first set, will be tested in the plant witnessed by a duly authorized DCL representative, the second set will be sent to independent testing laboratory. The third set will be kept by the manufacturer as reference for future use.
- 7.1.3 Test sample(s) for independent test shall be packed/sealed and signed in the presence of DCL representative and shall be submitted to independent testing laboratory by the DCL representative.

7.2 Product Evaluation

- 7.2.1 Product properties and test methods shall comply with the requirements of section 4.2, 4.3 and Annex D of the standard specifications as follows

7.2.1.1 For General Application

- 7.2.1.1.1 Apparent Density as per EN 1602
- 7.2.1.1.2 Thermal Resistance and Thermal Conductivity as per prEN 12667 or EN 12939 or ISO 8301 or ASTM C 518 @ 35°C & 60% RH
- 7.2.1.1.3 Length and Width as per EN 822
- 7.2.1.1.4 Thickness as per EN 823
- 7.2.1.1.5 Squareness as per EN 824
- 7.2.1.1.6 Flatness as per EN 825

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- 7.2.1.1.7 Dimensional Stability under constant normal laboratory conditions as per EN 1603
- 7.2.1.1.8 Dimensional Stability under specified temperature and humidity conditions as per EN 1604
- 7.2.1.1.9 Point Load as per EN 12430
- 7.2.1.1.10 Reaction to Fire as per EN 13501-1
- 7.2.1.2 For Specific Application
- 7.2.1.2.1 Dimensional Stability as per EN 1604
- 7.2.1.2.2 Compressive Strength as per EN 826
- 7.2.1.2.3 Bending Strength as per EN 12089
- 7.2.1.2.4 Tensile Strength parallel to faces as per EN 1608
- 7.2.1.2.5 Tensile Strength perpendicular to faces as per EN 1607
- 7.2.1.2.6 Compressive Creep as per EN 1606
- 7.2.1.2.7 Water Absorption
- a. Short Term water absorption as per EN 1609
- b. Long Term water absorption as per EN 12087
- 7.2.1.2.8 Water Vapor Transmission as per EN 12086
- 7.2.1.2.9 Sound Absorption as per EN ISO 354:1993/A1 and prEN ISO 11654
- 7.2.2 The dimension of the test specimens and the minimum number of measurements required to get one test result including any specific conditions which are necessary shall be in accordance with Table 4 and Table D1 of the standard specification.
- 7.2.3 If facing are applied, faced boards shall only be tested for dimensions, squareness, flatness, compressive strength, thermal conductivity and reaction to fire.
- 7.2.4 Independent test shall only be conducted if the result of the in-plant test shows satisfactory result.
- 7.2.5 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 DM Certification Body, on which full testing shall be carried out ,if necessary.
- 7.2.6 If the retest passed, the initial product assessment is considered conforming to product specification. If not, the manufacturer will be advised to take corrective action.
- 7.2.7 Only after reassessment and subsequent product compliance shall the manufacturer be allowed to use DCL Conformity Mark on his product.

8. COMPLIANCE AND RESPONSIBILITIES OF THE LICENSEE

8.1 Compliance

- 8.1.1 When the results of the factory and/or product assessments show conformity to the requirements specified in the general rule and specific rule, the license to use the DCL Conformity Mark shall be issued to the manufacturer for the type(s)/model(s)/brand(s) of the product tested.
- 8.1.2 The factory shall agree with the DM Certification Body 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. The plan shall consist of (1) an internal product quality assurance, and (2) an independent testing plan

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8.1.2.1 Internal product quality assurance plan

The factory shall prepare and submit to DM Certification Body for approval 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

8.1.2.2 Independent testing plan

The factory shall agree to an independent testing plan to be carried out on samples which are collected in accordance with RD-DP21-2096 (IC) – Surveillance of Licensed Establishments under the Factory Assessment Scheme, and implemented by the DM Certification Body.

8.2 Responsibilities of the Licensee

8.2.1 Every licensee shall ensure that his product, for which a license has been issued, conforms at all times to the requirements of the General Rule and Specific Rules and shall maintain to the satisfaction of DCL, a system of quality control including inspection and testing.

8.2.2 The licensee shall give the duly authorized representative(s) of DCL, 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.

8.2.3 The licensee shall inform the DM Certification Body in writing of any change of management, transfer of plant site, modification in the product, manufacturing process or factory's quality management system.

8.2.4 Upon transfer of plant site, the license shall be deemed valid only after factory and product audit at the new site has been satisfactorily completed.

8.2.5 Any infraction stated in the terms and conditions of the certification scheme and the use of DCL Conformity Mark shall constitute sufficient grounds for suspension, withdrawal and cancellation of the license against a licensee.

8.2.6 Any dispute that may arise in connection with the terms and conditions of the certification scheme shall be settled in accordance with the General Rule for DM Third Party Product Certification System through Factory Assessment.

9. SURVEILLANCE

DM Certification Body shall carry out periodic surveillance to ensure consistent compliance with the requirements of this certification scheme as per RD-DP21-2096 (IC) – Surveillance of Licensed Establishments under the Factory Assessment Scheme.

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10. USE OF THE DCL CONFORMITY MARK

- 10.1 The design and use of the DCL Conformity Mark shall be in accordance with the DM Third Party Certification System Terms and Conditions for the use of the DCL Mark of Conformity, RD-DP21-2098 (IC).
- 10.2 The licensee shall submit a product-marking proposal for approval by the DM Certification Body. The proposal shall include drawings and/or diagrams showing the location and size of the marking for each size of the product container.
- 10.3 The license to use the DCL Conformity Mark is non-transferable.

11. FEE SCHEDULE

- 11.1 The licensee shall pay the applicable fees and charges related to the granting of the license to use the DCL Conformity Mark based on the DCL Official Fee Structure, RD-DP21-2097 (IC).
- 11.2 The fees for this certification scheme shall include but not limited to the following;
- 11.2.1 Application Fee
 - 11.2.2 Initial Assessment Fee
 - 11.2.3 Certification Fee
 - 11.2.4 Surveillance Fee
 - 11.2.5 Annual Renewal Fee
 - 11.2.6 Sampling and Testing Fee
 - 11.2.7 Marking Fee

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