



**Specific Rules for Batch Certification of Rigid, Cellular Polystyrene
Thermal Insulation As Per ASTM C 578-08**

Dubai Central Laboratory- Inspection and Certification Section

Doc. Ref : RD-DP20-1103 (IC)

Rev. No.: 2

Issue Date :12-07-2009

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Issue Date	Rev. No.	Summary Of Amendments
25/01/2004	0	Draft for comments
05/02/2004	0	Second draft for comments
01/03/2004	1	Issue for use
12-07-2009	2	Document reference number and format is changed according to the new IMS. Test methods are removed, (in accordance with the test methods specified in the Standard Specifications).

Prepared by

Authorized by

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1. INTRODUCTION

- 1.1 This document contains the specific rules for the implementation of the DM Third Party Product Certification System Through Batch Testing as applied to the specific product(s) identified herein, taking into consideration the applicable normative references (Standard Specification or regulations), as well as the unique characteristics and production method for that product (or group of products).
- 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 System Through Batch Testing" (**RD-DP20-1001**).

2. PRODUCT IDENTIFICATION AND APPLICABLE STANDARD/NORMATIVE REFERENCE

- 2.1 Product name: Rigid, cellular polystyrene thermal insulation
- 2.2 Applicable standard/Normative reference: ASTM C-578-03 Standard Specification for Rigid Cellular Polystyrene Thermal Insulation
- 2.3 Additional reference: ASTM C 390-03 Sampling and Acceptance of Thermal Insulation Lots

3. DEFINITION OF TERMS

The definitions given in **RD-DP20-1001**, **ASTM C 578-03**, **ASTM C 390-03**, and, in addition, the following shall apply:

- 3.1 Independent Testing Laboratory - Dubai Central Laboratory Department or independent testing laboratory recognized by the DM Certification Body.
- 3.2 Standard Specification – ASTM C 578-03 Standard Specification for Rigid Cellular Polystyrene Thermal Insulation

4. GENERAL REQUIREMENTS

- 4.1 The supplier shall have a valid license (issued by Dubai Department of Economic Development) to supply the product.
- 4.2 The supplier shall have a factory/yard within Dubai Emirate wherein products subject to certification will be stored and where sampling shall take place.
- 4.3 The supplier shall be registered with the DM-Certification Body.

5. REGISTRATION OF THE ESTABLISHMENT

- 5.1 Documents required to be submitted for registration:
- Filled application form
 - Valid trade/industrial license issued by the Dubai Department of Economic Development;
 - Factory/yard lay-out showing location where products subject to certification are stored;
 - Product description (batch size, bundles per batch, etc);
 - Proposed product labeling and numbering system for traceability of the batch being certified;
 - Proposed product identification mark;

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5.2 Items to be verified during the initial factory/yard inspection:

- Visual verification of the factory/yard and the lay-out in the yard of the products to be certified;
- Visual verification of the identification system for the batches (tags or labels on the bundles, etc.).
- Visual verification of the product identification mark (applied on the product)

5.3 DM-Certification Body shall carry out initial testing of the product. The DM-Certification Body shall draw random samples from the factory and submit the samples at an Independent Testing Laboratory for the following tests, in accordance with the Standard Specification:

Dimension, mm
Workmanship, finish and appearance
Density, kg/m³
Thermal conductivity at 35°C and 60% RH, W/mK
Compressive resistance at 10% deformation, kPa
Flexural Strength, kPa
Water vapor permeance, ng/Pa.s.m²
Water absorption, % volume
Dimensional stability at 70% and 97% RH, %
Oxygen index

The results of testing must meet the requirements as per the Standard Specification.

5.4 After satisfying the above requirements, the establishment shall be informed officially and shall be included in the list of registered Suppliers for this certification scheme. The establishment can start submitting requests for certification of specific batches.

6. REQUEST FOR CERTIFICATION

6.1 Prior to submitting the request for certification, the supplier shall prepare the batches in the yard in accordance with the approved product description, and identified in accordance with the product labeling and numbering system.

6.2 The Supplier shall submit a request for certification for each lot of the product. The request form shall be filled up and faxed to Inspection and Certification Unit DCLD.

7. SAMPLING AND TESTING

7.1 Sampling and inspection shall be carried out in accordance with the requirements of ASTM C 390-03. Lot size shall be determined and a random sample shall be selected. The sample size shall be as specified in ASTM C 390-03.

7.2 The sample shall be submitted for testing at the Independent Testing Laboratory. The tests to be carried out for each batch (in accordance with the Test Method mentioned in the Standard Specification), are as follows:

- a. Dimension, mm
- b. Workmanship, finish and appearance
- c. Density, kg/m³

7.3 Additional tests to be carried out on the initial batch and on one batch every six months, thereafter:

- a. Thermal conductivity at 35°C and 60% RH, W/mK

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- b. Compressive resistance at 10% deformation, kPa
- c. Flexural Strength, kPa
- d. Water vapor permeance, ng/Pa.s.m²
- e. Water absorption, % volume
- f. Dimensional stability, %
- g. Oxygen index

7.4 The result of a particular test is considered "PASSED" if it meets the requirements as given in the Standard Specification and as per the acceptance criteria in ASTM C 390-03. If not, it is considered as "FAILED".

NOTE: If the initial testing described in clause 5.3 was carried out on samples drawn from a defined batch, the results of the initial testing may be used to certify that particular batch.

8. ISSUE OF CERTIFICATE OF CONFORMITY

- 8.1 If the results of the above-mentioned tests are all "PASSED", a Certificate of Conformity shall be issued for the particular batch where the sample was taken.
- 8.2 If one or more of the results is "FAILED", a Certificate of Non-Conformity shall be issued for the particular batch.

9. SURVEILLANCE

- 9.1 DM Certification Body shall carry out surveillance of the product in the market by taking samples from sites where the certified products are being used. The samples shall be taken to an Independent Testing Laboratory for verification testing to ensure that only certified products are used in the field.
- 9.2 In case of non-compliance found during surveillance, appropriate action shall be taken in accordance with the General Rules clause 11 "Suspension and Withdrawal of Registration". A supplier whose registration has been suspended or withdrawn shall not be allowed to submit any product for certification.

10. FEES

- 10.1 The DM Certification Body shall charge the following fees in accordance with the fee schedule:
- Sampling Fee
 - Travel time fee
 - Certification fee
- 10.2 The DM Certification body shall send an Invoice for any certification service rendered to the Supplier. Fees shall be paid to Dubai Central Laboratory Department.
- 10.3 Testing fees shall be paid by the client directly to the Independent Testing Laboratory that carried out the tests.

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