


 GOVERNMENT OF DUBAI	Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:	 بلدية دبي Dubai Municipality
	Document Title:	Certification of Reflective Insulation as per AS/NZS 4859.1: 2018	عنوان الوثيقة:	
	Doc Ref.	DM-DCLD-RD-DP21-2142 (IC)	رقم الوثيقة :	

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Issue Date	Rev. No.	Summary Of Amendments
14-01-2007	0	First draft for comments
10-06-2007	0	Final draft
20-06-2007	1	Issue for use
15-07-2009	2	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 referred to the appropriate procedure, RD-DP21-2096 (IC).
07-01-2010	3	Additional test method for the Fire safety properties.
10-03-2019	4	Updated format as per new DM template and new DM logo
06-09-2020	5	Revised to add the options for initial audit by the approved CAB and remotely by DCLD-PCAS Adding definition for authorized auditor. Update for the new standard edition, new numbering system and followed terminologies. Add provision for accepting valid test reports.
26-09-2021	6	Removal of the documents in clause 2.1.2, in addition to further amendment in the provision for accepting valid test reports (clause 2.4.4), 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.
07/10/2022	7	Changing section name as per the new organizational structure, and replace HOU by CQPSM (Section's Manager), also addition of surveillance in the clause 2.4.4
27/03/2023	8	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 reflective insulation as per material classification specified in AS/NZS 4859.1:2018 standard.
- 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: Reflective Insulation
- 3.2 Applicable standard/Normative reference: AS/NZS 4859.1:2018 - Materials for the thermal insulation of buildings. Part 1: General criteria and technical provisions.
- 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).

4 DEFINITION OF TERMS

- 4.1 In addition to the definitions given in AS/NZS 4859.1 and the General Rule of the scheme [DM-DCLD-RD-DP21-2001 (IC)], the following shall apply:-

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4.1.1 Standard Specification – AS/NZS 4859.1:2018 - Materials for the thermal insulation of buildings. Part 1:
General criteria and technical provisions.

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:

- Heat Flow Meter
- Infrared Tester
- Weighing Scale
- Dimensional measuring instruments

5.3 Product Evaluation and testing

5.3.1 The manufacturer/applicant shall submit to DCLD-CQPS declaration of product specification subject for certification. This shall include but not limited to:

- Thermal Resistance and Thermal Conductivity
- Infra-red Emittance

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 - The thermal resistance shall be determined in accordance with the test method prescribed in Table 2.1 of the standard specification (SS).

Note1: 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 Infra-red Emittance - All reflective surfaces shall be tested for infra-red emittance in accordance with ASTM E 408.

5.3.2.3 Solar Reflectance - Classification and measurement of solar reflectance shall be in accordance with section 2.5 of the standard specification (SS).



5.3.2.4 Corrosiveness - The corrosiveness of the insulating materials shall be tested in accordance with Appendix H of the standard specification (SS).

5.3.2.5 Dry Delamination - Dry delamination of the product shall comply with the requirements of AS/NZS 4201.1 as prescribed in section 9.3.2 of the standard specification (SS).

5.3.2.6 Surface Corrosion and Wet Delamination - Surface corrosion and wet delamination of the product shall comply with section 9.3.3 when tested in accordance with Appendix I of the standard specification (SS).

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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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