

Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:
Document Title:	Certification of Mineral Fiber Pipe Insulation as per ASTM C547-2019	عنوان الوثيقة:
Doc Ref.	DM-DCLD-RD-DP21-2107 (IC)	رقم الوثيقة:



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Issue Date	Rev. No.	Summary Of Amendments
02/07/2005	0	First draft for comments
09/07/2005	0	Final draft for approval
06/08/2005	1	Issue for use
26/01/2009	2	Reviewed with the requirements of the current version of the standard (2007) and found to be
,,,	_	still suitable.
09/08/2009	3	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).
02/08/2011	4	Reviewed with the requirements of the current version of the standard (2011) and found to be
		still suitable. Upgrading of RD-DP21-2098 (IC) to IMS-RD-13
06/04/2014	5	Reviewed with the requirements of the current version of the standard (ASTM C547-12) and
		found to be still suitable
17/07/2017	6	Revised Format according to the latest template
07/03/2019	7	Revised Format according to new DM template and new DM logo
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 standard edition, 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 2.4.2.6), 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 rules. Clause are re-
		numbered 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 mineral fiber insulation produced to form hollow cylinders for standard pipe and tubing sizes for industrial application, as per the products mentioned in the applicable standard specifications.
- 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: Mineral Fiber Pipe Insulation

3.2 Applicable standard/Normative reference: ASTM C 547-2019 Standard Specification for Mineral Fiber

Pipe Insulation.

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 ASTM C 547, ASTM C 168 and DM-DCLD-RD-DP21-2001 (IC) the following shall also apply
 - 4.1.1 Standard Specification Standard Specification ASTM C547-2019 Standard Specification for Mineral Fiber Pipe Insulation

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:
 - a. Weighing Scale.
 - b. Dimensional measuring instruments.
- 5.3 Product Evaluation and testing
 - 5.3.1 Physical requirements of the product/s shall conform to the requirements specified in section 6 of ASTM C 547.
 - 5.3.2 Standard shapes, sizes and dimension including dimensional tolerances shall conform to the requirements as specified in sections 7 and 8 of ASTM C 547.
 - 5.3.3 Workmanship The product/s shall not have defects that will adversely affect installation or service quality
 - 5.3.4 The test to be carried out shall be in accordance with the test method mentioned in the standard specification as follows:
 - 5.3.4.1 Density and Dimension as per ASTM C 302
 - 5.3.4.2 Linear Shrinkage as per ASTM C 356
 - 5.3.4.3 Thermal Conductivity as per ASTM C 1058, ASTM C 1045, ASTM C 335
 - 5.3.4.4 Water Vapor Sorption as per ASTM C 1104/ C 1104M
 - 5.3.4.5 Surface Burning Characteristic as per ASTM E 84 (FSI = 25 max; SD = 50 max)
 - 5.3.4.6 Hot Surface Performance as per ASTM C 411 / ASTM C 447
 - 5.3.4.7 Sag Resistance as per ASTM C 547, ASTM C 167
 - 5.3.4.8 Non-Fibrous (Shot) Content as per ASTM C 1335
 - 5.3.4.9 Stress Corrosion of Performance as per ASTM C 795

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5.3.5 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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