

 GOVERNMENT OF DUBAI	Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:	 بلدية دبي Dubai Municipality
	Document Title:	Certification of Low Emitting Materials as per Al Sa'fat – Dubai Green Building System	عنوان الوثيقة:	
	Doc Ref.	DM-DCLD-RD-DP21-2180 (IC)	رقم الوثيقة :	

Table of Contents

REVISION HISTORY	2
INTRODUCTION	3
SCOPE.....	4
PRODUCT IDENTIFICATION AND APPLICABLE STANDARD/NORMATIVE REFERENCE	4
DEFINITION OF TERMS	5
REQUIREMENTS FOR INITIAL CERTIFICATION	5
GRANTING OF THE DCL CERTIFICATION AND FEES	8

Approved by CQPSM	Authorized by CQPSM
Date of Issue :27/03/2023	Rev. No. : 18
General / عام : Level of Confidentiality / درجة السرية	Page 1 of 8

Note: Printed copy of this document shall be treated as 'Uncontrolled'. Always refer the controlled version 'Online

	Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:	
	Document Title:	Certification of Low Emitting Materials as per Al Sa'fat – Dubai Green Building System and Dubai Building Code	عنوان الوثيقة:	
	Doc Ref.	DM-DCLD-RD-DP21-2180 (IC)	رقم الوثيقة :	

Issue Date	Rev. No.	Summary Of Amendments
06/11/2012	0	First draft for comments
19/11/2012	0	Final draft
04/12/2012	1	Issue for use
18/06/2014	2	Amended for typographical error clause [2.2.2]
08/09/2015	3	Updated the reference to DMS 020: 2015 and incorporating the pass-fail criteria as Annex A. Use of the term "license" and "licensee" is avoided.
29/03/2016	4	Scope is changed to Low Emitting Materials (paints, coatings, adhesives, sealants). Added Table 1 for Required Tests; Added formaldehyde [2.4.1.2] as a required test for paints and coatings;
17/07/2016	5	Provision for the selecting samples and sample size [2.4]
21/08/2016	6	Table 1 is revised to differentiate external & internal coatings and to add test requirements for external coating. Some Test Methods were updated in [2.4.1].
16/05/2017	7	Updated Table 1; Annex B added; removed Table A.2 from Annex A
30/05/2018	8	Updated to align with Al Sa'fat – Dubai Green Building Evaluation System; added category of coating applied on hardscapes in Table 1; Format updated in accordance with DM unified template
27/06/2018	9	Minor amendment of terminology related to Al Sa'fat; Adding coating for hardscapes in Annex B.
01/07/2018	10	Additional amendments addressing the requirements for coatings used for hardscapes.
05/09/2018	11	Clarification for the tests to be done. Amend the percentage for sampling.
06/09/2020	12	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. Correction of numbering. Add provision for accepting valid test reports
06/09/2021	13	Revised to reflect the 2020 version of Al Sa'fat – Dubai Green Building System; to reflect the Formaldehyde requirements for coatings in Table 1; to reflect the correct reference clause for the test requirement as per Table 1. Removal of the documents in clause 2.1.2, in addition to further amendment in the provision for accepting valid test reports (clause 2.4.1.4), in line with DM 30% reduction of requirements (both service and specialized).
26/09/2021	14	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.
18/07/2022	15	Note is added under the Table A.1 for product type declared as Solvent Free
11/08/2022	16	Added the provisions for the application for extension of brand name owned by a private brand owner to DCL certified manufacturer(s).
04/10/2022	17	Changing section name as per the new organizational structure, and replace HOU by CQPSM (Section's Manager). Adding surveillance under 2.4.1.4

Approved by CQPSM	Authorized by CQPSM
Date of Issue : 27/03/2023	Rev. No. : 18
General / عام : Level of Confidentiality / درجة السرية	Page 2 of 8

Note: Printed copy of this document shall be treated as 'Uncontrolled'. Always refer the controlled version 'Online

 GOVERNMENT OF DUBAI	Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:	 بلدية دبي Dubai Municipality
	Document Title:	Certification of Low Emitting Materials as per Al Sa'fat – Dubai Green Building System and Dubai Building Code	عنوان الوثيقة:	
	Doc Ref.	DM-DCLD-RD-DP21-2180 (IC)	رقم الوثيقة :	

Issue Date	Rev. No.	Summary Of Amendments
27/03/2023	18	<p>Full re-structuring and transfer of common provisions to the general rule. Clauses are re-numbered and document title has been revised accordingly. Revised to align with the 2nd edition of ALS'AFAT 2023 and related clauses of 2021 edition of Dubai Building Code.. Removing of LRV and replace it by SRI in table under 5.6.2 for different product applications. Removing the Annexures in addition to the provisions related to classification of SRI. Revision of clause 5.3 (allowing brand additions to more than 2 factories and including traders). Use of New DM Logo</p>

Approved by CQPSM	Authorized by CQPSM
Date of Issue : 27/03/2023	Rev. No. : 18
General / عام : Level of Confidentiality / درجة السرية	Page 3 of 8

Note: Printed copy of this document shall be treated as 'Uncontrolled'. Always refer the controlled version 'Online

بيانات مفتوحة / OPEN DATA

 GOVERNMENT OF DUBAI	Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:	 بلدية دبي Dubai Municipality
	Document Title:	Certification of Low Emitting Materials as per Al Sa'fat – Dubai Green Building System and Dubai Building Code	عنوان الوثيقة:	
	Doc Ref.	DM-DCLD-RD-DP21-2180 (IC)	رقم الوثيقة :	

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 applies to Low Emitting Materials (paints, coatings, adhesives, sealants) in accordance with the related requirements and specifications in the **2023 Al Sa'fat Dubai Green Building System-2nd edition and related causes in Dubai Building Code**.
- 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: Low Emitting Materials (Paints, Coatings, Adhesives, Sealants)
- 3.2 Applicable standard/Normative reference: **2023 Al Sa'fat Dubai Green Building System-2nd edition clauses [404.01] and/or [404.02], [304.01], [304.04] [304.07], [701.04] and related clauses in 2021- Dubai Building Code**.
- 3.3 Additional reference:
ISO 9001 Quality Management System – Requirements
ISO 19011 Guidelines for Auditing Management Systems
DMS 20: **2016** Specifications for paints and varnishes

Approved by CQPSM	Authorized by CQPSM
Date of Issue : 27/03/2023	Rev. No. : 18
General / عام : Level of Confidentiality / درجة السرية	Page 4 of 8

Note: Printed copy of this document shall be treated as 'Uncontrolled'. Always refer the controlled version 'Online

 GOVERNMENT OF DUBAI	Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:	 بلدية دبي Dubai Municipality
	Document Title: Certification of Low Emitting Materials as per Al Sa'fat – Dubai Green Building System and Dubai Building Code	عنوان الوثيقة:	
	Doc Ref. DM-DCLD-RD-DP21-2180 (IC)	رقم الوثيقة :	

4 DEFINITION OF TERMS

4.1 In addition to the definitions given in Al Sa'fat Dubai Green Building System, Dubai Building Code and the General Rule of the scheme [DM-DCLD-RD-DP21-2001 (IC)], the following shall apply:-

4.1.1 Standard Specification – 2023 Al Sa'fat Dubai Green Building System-2nd edition clauses [404.01] and/or [404.02], [304.01], [304.04] [304.07], [701.04] And Dubai Building Code - Parts H and K (as applicable).

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 manufacturer shall have a quality assurance laboratory to carry out factory production control testing.
- 5.3 In some special cases, where the applicant (certified manufacturer) wishes to extend its scope of certification to include the brand name(s) of other traders or already certified manufacturer (s); then DCLD-CQPS may allow it provided it is officially requested in the application for extension of the scope of certification. The brand name(s) being applied for extension has to be authorized by its owner. DCLD-CQPS may opt to collect new samples for testing to verify that the products are meeting the requirements of standard specification. In such case, the label or product packaging may have the statement “**Manufactured for [name of the owner of the brand name (Trader or DCLD-CQPS certified manufacturer)]**” or any similar statement. However, the “**Manufactured by (client code or project number, CF-XX of the main certified client)**”, shall be mentioned for identification and traceability.”
- 5.4 For the provision mentioned under clause 5.3 above, a contract copy of manufacturing authorization (or any authorization letter) shall be mutually signed by the owner of the brand name and the certified manufacturer, and shall be submitted to DCLD-CQPS during the request for scope extension.
- 5.5 For the product which are similar to certified one or already within the scope, product verification shall be carried out either by product testing or recipe evaluation by verifying the production report from the factory, or both.
- 5.6 Product Evaluation and testing
- 5.6.1 Sampling for testing and evaluation by DCLD-CQPS shall be at least one sample or 10% of the number of products per subcategory (whichever is higher).

Approved by CQPSM	Authorized by CQPSM
Date of Issue : 27/03/2023	Rev. No. : 18
General / عام : Level of Confidentiality / درجة السرية	Page 5 of 8

Note: Printed copy of this document shall be treated as 'Uncontrolled'. Always refer the controlled version 'Online

 GOVERNMENT OF DUBAI	Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية: 	 بلدية دبي Dubai Municipality
	Document Title: Certification of Low Emitting Materials as per Al Sa'fat – Dubai Green Building System and Dubai Building Code	عنوان الوثيقة: 	
	Doc Ref. DM-DCLD-RD-DP21-2180 (IC)	رقم الوثيقة : 	

5.6.2 The required test to be carried out on different types of low-emitting material is as per table below:-

S/N	LOW EMITTING MATERIAL	REQUIRED TESTS
1	Roof Paint	Solar Reflective Index* (SRI) Volatile Organic Compound (VOC) Formaldehyde Heavy Metals
2	Paint (Wall Exterior/Exposed)	Solar Reflective Index* (SRI) Volatile Organic Compound (VOC) Formaldehyde Heavy Metals
3	Paint (Interior /Not Exposed)	Volatile Organic Compound (VOC) Formaldehyde Heavy Metals
4	Coatings (other than paint) for exterior/exposed wall application	Solar Reflective Index* (SRI). Volatile Organic Compound (VOC) Formaldehyde
5	Roof Coating/Coating Applied to Hardscapes	Solar Reflective Index* (SRI) Volatile Organic Compound (VOC) Formaldehyde
6	Coatings (other types not covered by above)	Solar Reflective Index* (SRI) (if used in exterior application). Volatile Organic Compound (VOC) Formaldehyde
7	Adhesives	Volatile Organic Compound (VOC)
8	Sealants	Volatile Organic Compound (VOC)

5.6.3 Volatile Organic Compounds (VOC)

5.6.3.1 For Paints, Varnishes and Coatings as per Clause 404.01 (The acceptance limit shall be in accordance with Dubai Municipality Standard (DMS) 20: 2016 Table 1), and tested as per test methods mentioned in the same standard

(Notes : 1. Equivalent test methods can be accepted based on approval of DCLD-CQPS).

- Whenever the client declared the type of the product(s) as Solvent Free, the evaluation will be based on the value under the Water Based type as shown on the above table; however the scope of certification will refer to the product as Solvent Free.

Approved by CQPSM	Authorized by CQPSM
Date of Issue : 27/03/2023	Rev. No. : 18
General / عام : Level of Confidentiality / درجة السرية	Page 6 of 8

Note: Printed copy of this document shall be treated as 'Uncontrolled'. Always refer the controlled version 'Online

 GOVERNMENT OF DUBAI	Organization/Unit: إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية: 	 بلدية دبي Dubai Municipality
	Document Title: Certification of Low Emitting Materials as per Al Sa'fat – Dubai Green Building System and Dubai Building Code	عنوان الوثيقة: 	
	Doc Ref. DM-DCLD-RD-DP21-2180 (IC)	رقم الوثيقة : 	

5.6.3.2 For Adhesive and Sealant as per Clause 404.02 of the standard specification. The acceptable maximum VOC limit shall be in accordance with the table below for each product category

Maximum VOC Limits - Grams per litre (g/l) less water			
Architectural Applications		Specialty Applications	
Indoor Carpet Adhesives	50	PVC Welding	510
Carpet Pad Adhesives	50	CPVC Welding	490
Wood Flooring Adhesives	100	ABS Welding	325
Rubber Floor Adhesives	60	Plastic Cement Welding	250
Subfloor Adhesives	50	Adhesive Primer for Plastic	550
Ceramic Tile Adhesives	65	Contact Adhesive	80
VCR & Asphalt Adhesives	50	Special Purpose Contact Adhesive	250
Drywall & Panel Adhesives	50	Structural Wood Member Adhesive	140
Cove Base Adhesives	50	Sheet Applied Rubber Lining Operations	850
Multipurpose Construction Adhesives	70	Top & Trim Adhesive	250
Structural Glazing Adhesives	100		
Substrate Specific Applications		Sealants	
Metal to Metal	30	Architectural	250
Plastic Foams	50	Non-Membrane Roof	300
Porous Materials (except wood)	50	Roadway	250
Wood	30	Single-Ply Roof Membrane	450
Fiberglass	80	Other	420
		Sealant Primers	
		Architectural Non-Porous	250
		Architectural Porous	775
		Other	750

Approved by CQPSM	Authorized by CQPSM
Date of Issue : 27/03/2023	Rev. No. : 18
General / عام : Level of Confidentiality / درجة السرية	Page 7 of 8

Note: Printed copy of this document shall be treated as 'Uncontrolled'. Always refer the controlled version 'Online

 GOVERNMENT OF DUBAI	Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:	 بلدية دبي Dubai Municipality
	Document Title:	Certification of Low Emitting Materials as per Al Sa'fat – Dubai Green Building System and Dubai Building Code	عنوان الوثيقة:	
	Doc Ref.	DM-DCLD-RD-DP21-2180 (IC)	رقم الوثيقة :	

Note: When exempt compounds (as per US EPA definition) are present in the product being tested, the quantity may be deducted from the reported VOC content subject to the following conditions:

- The reported value (in the test report) did not take into consideration the presence of exempt compounds;*
- The client submits a declaration of the amount of exempt compounds, supported by documented evidences (formulations, test reports, etc) that have been reviewed and verified by DCL authorized auditors;*

- 5.6.4 Formaldehyde content of water reducible coatings and emulsion paints shall not exceed the limit as per clause 4.4.5 of DMS 20:2016.
- 5.6.5 Heavy Metals as per Clause 701.04 of the standard specification. Heavy metal maximum detected level shall not exceed the limits stated in DMS 20 Clause 4.3.
- 5.6.6 Solar Reflective Index shall comply with the requirements under clause 304.01 & 304.04 & 304.06 and 304.07 of the standard specification. Acceptance limit shall be as per the values stated in the aforementioned clauses, as applicable for each application of the product. This requirement is applicable to paints and coatings used in roofing surfaces, shading and hardscapes. The paint/coatings shall be applied on a flat substrate such as wood, metal or plastic sheet or concrete surface with a minimum size of 150 x 150 mm. The thickness of applied paint shall be such that there is no transparency. SRI value in the scope of certification is just for information. The user (owner, contractor or consultant) shall be fully responsible for ensuring that the correct SRI value is followed according to the requirements of the standard specification and the application of the product.

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.

Approved by CQPSM	Authorized by CQPSM
Date of Issue : 27/03/2023	Rev. No. : 18
General / عام : Level of Confidentiality / درجة السرية	Page 8 of 8

Note: Printed copy of this document shall be treated as 'Uncontrolled'. Always refer the controlled version 'Online