

Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:
Document Title:	Specific Rules for FA Certification of Precast Concrete Masonry Blocks as per DMS 1 Part 1: 2020	عنوان الوثيقة:
Doc Ref.	DM-DCLD-RD-DP21-2169 (IC)	رقم اله ثبقة ٠



Issue Date	Rev. No.	Summary Of Amendments
06-08-2009	0	First draft for comments
23-02-2010	0	Second draft for comments
24-02-2010	0	Final draft (TC Meeting 2010-02)
03-03-2010	1	Issue for use
05-04-2010	2	Revised to align with the amended DMS, and the guidelines for the factory production control system.
28/06/2010	3	Amended the reference document for the fee structure of block factories in section 5.1
16/02/2011	4	Inclusion of the types of masonry blocks samples n in section 2.4.1
18/08/2011	5	Distribution of tests for the different types of masonry block samples in section 2.4.2
		Reviewed with the requirements of the current version of the standard (2011) and found to be still suitable
12/03/2019	6	Updated format as per new DM template and new DM logo
16/07/2020	7	Add the options for initial audit by the approved CAB and remotely by PCAS. Adding definition for authorized
		auditor. Reviewed with the requirements of the current version of the standard (2020). Include the durability
		and visual aspects and some other minor additions. Update for the new numbering system and followed terminologies.
26-09-2021	8	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). 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.

Approved by HOU	Authorized by PCASM
Date of Issue : 26/09/2021	Rev. No. : 08
درجة السرية / Level of Confidentiality : عام / General	Page 1 of 8



	Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:
d	Document Title:	Specific Rules for FA Certification of Precast Concrete Masonry Blocks as per DMS 1 Part 1: 2020	عنوان الوثيقة:
	Doc Ref.	DM-DCLD-RD-DP21-2169 (IC)	رقم الوثيقة:



### 1. GENERAL

### 1.1 INTRODUCTION

- 1.1.1 This document prescribes the Specific Rules for the implementation of the DM Third Party Product Certification Scheme through factory assessment as applied to the specific product(s) identified herein, taking into consideration the applicable normative references and standard specifications.
- 1.1.2 The applicant shall comply with these specific rules, and with those already mentioned in the "General Rules for DM Third Party Product Certification Through Factory Assessment", DM-DCLD-RD-DP21-2001 (IC).

#### 1.2 SCOPE

This Specific Rules covers the requirements for the certification of precast normal weight and lightweight concrete masonry blocks that will be used in the Emirate of Dubai.

- 1.3 PRODUCT IDENTIFICATION AND APPLICABLE STANDARD/NORMATIVE REFERENCE
- 1.3.1 Product Name: Precast Concrete Masonry Blocks
- 1.3.2 Applicable Standard/Normative Reference: DMS 1: Part 1: 2020 Specification for precast concrete blocks Part 1: Masonry blocks
- 1.3.3 Additional References:

ISO 9001 - Quality Management System - RequirementsISO 19011 - Guidelines for Auditing Management Systems

# 1.4 DEFINITION OF TERMS

In addition to the definitions given in DMS 1: Part 1:2020 and , DM-DCLD-RD-DP21-2001 (IC) and in addition, the following shall apply:

1.4.1 Independent Testing Laboratory - Dubai Central Laboratory (DCL) or any testing laboratory recognized by DCLD-PCAS

Approved by HOU	Authorized by PCASM
Date of Issue : 26/09/2021	Rev. No. : 08
درجة السرية / Level of Confidentiality : عام / General	Page 2 of 8



Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:
Document Title:	Specific Rules for FA Certification of Precast Concrete Masonry Blocks as per DMS 1 Part 1: 2020	عنوان الوثيقة:
Doc Ref.	DM-DCLD-RD-DP21-2169 (IC)	رقم الوثيقة:



- 1.4.2 Independent Test test performed or conducted by the recognized Independent Testing Laboratory
- 1.4.3 Standard Specification DMS 1 Part 1:2020 Specification for precast concrete blocks Part 1: Masonry blocks
- 1.4.4 Factory Production Control System (Product Quality Assurance Plan) a document being agreed upon both by the client and DCLD-PCAS being used to ensure continuous compliance of the certified product (DM-DCLD-RD-DP21-2090 (IC).
- 1.4.5 QMS Quality Management System aligned with the requirements of ISO 9001 Standard
- 1.4.6 Client Manufacturer of Precast Concrete Masonry Blocks
- 1.4.7 DM Certification Body: Dubai Central Laboratory Department-Products Conformity Assessment Section (DCLD-PCAS)
- 1.4.8 Authorized auditor: is any approved auditor by DCLD-PCAS either internal within DCLD or external (Approved CAB's auditor or approved auditor based on a signed contract)

# 2. REQUIREMENTS FOR CERTIFICATION

- 2.1 APPLICATION
- 2.1.1 The client shall apply to DCLD-PCAS for the Certification and authorization to use the DCL Conformity Mark.
- 2.1.2 Application form shall be submitted by client to DCLD-PCAS
- 2.1.3 Separate application shall be submitted for each product type or group of products that refers to a different specific rules.
- 2.2 FACTORY OPERATION
- 2.2.1 Quality Management System

The client shall have a Quality Management System that is aligned to the requirements of ISO 9001 standard. NOTE: Having a certificate of ISO 9001 is not a mandatory requirement; however the structure of the manufacturer's QMS shall be in line with its requirements.

# 2.2.2 Laboratory

The client shall have a quality assurance laboratory to carry out factory production control testing to ensure that

Approved by HOU	Authorized by PCASM
Date of Issue : 26/09/2021	Rev. No. : 08
درجة السرية / Level of Confidentiality : عام /	Page 3 of 8



Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:
Document Title:	Specific Rules for FA Certification of Precast Concrete Masonry Blocks as per DMS 1 Part 1: 2020	عنوان الوثيقة:
Doc Ref.	DM-DCLD-RD-DP21-2169 (IC)	رقم الوثيقة:



the blocks comply with the requirements of the standard specification.

The laboratory can be part of the factory facilities, or, can be through a documented agreement with an accredited external laboratory. As a minimum requirement, the laboratory shall have the following testing equipment:

- a. Compressive testing machine for masonry blocks
- b. Dimensional measuring instruments

## 2.2.3 Unique Factory Identification Mark

The client shall submit to DCLD-PCAS a unique factory identification mark for their products for approval. The DCLD-PCAS approved mark shall be applied to the products covered by the certification.

#### 2.3 INITIAL FACTORY AUDIT

2.3.1 Initial factory audit will be carried out by duly authorized auditor(s) which will cover auditing of the quality management system to verify its compliance with the requirements of ISO 9001, in addition to verify the implementation of DCLD-PCAS certification's requirements. Where possible; the audit can be carried out remotely as per (DM-DCLD-RD-DP21-2098 (IC) Guidelines for Remote Audit) or as per the related approved guidelines which are followed by the approved outsourced CAB.

NOTE: An independent certification to ISO 9001 issued by a QMS certification body recognized by DCLD-PCAS may be considered as having satisfied this requirement; however, DCLD-PCAS may still opt to carry out verification audit to confirm that the factory is in compliance with requirements of DCLD certification schemes and rules, mainly the areas of production and monitoring stages of product realization, quality control and final product testing and evaluation.

2.3.2 Factory audit shall be conducted by designated audit team in accordance with ISO 19011 – Guidelines for Auditing Management Systems.

# 2.4 PRODUCT EVALUATION

# 2.4.1 Sampling and Testing

- 2.4.1.1 Sampling initial testing shall be shall be taken randomly by the authorized auditor from the products to be certified (size an quantity to be determined) either from production lines or the factory storage yard, in accordance with the requirements specified in Clause 8 of the Standard Specification.
- 2.4.1.2 Three sets of sample per type shall be subjected to testing; the first set, where possible, will be tested in the plant witnessed by a duly authorized auditor, the second set will be sent to DCLD-PCAS approved independent testing laboratory. The third set will be kept by the manufacturer as reference.

Approved by HOU	Authorized by PCASM
Date of Issue : 26/09/2021	Rev. No. : 08
درجة السرية / Level of Confidentiality : عام /	Page 4 of 8



Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:
Document Title:	Specific Rules for FA Certification of Precast Concrete Masonry Blocks as per DMS 1 Part 1: 2020	عنوان الوثيقة:
Doc Ref.	DM-DCLD-RD-DP21-2169 (IC)	رقم الوثيقة:

The types of masonry block samples are classified into;

- 1. Hollow/Cellular (Normal Weight) Masonry Block
- 2. Hollow/Cellular (Light Weight) Masonry Block
- 3. Solid (Normal Weight) Masonry Block
- 4. Solid (Light Weight) Masonry Block
- 2.4.1.3 Sample(s) for independent test shall be identified and signed in the presence of the authorized auditor and shall be submitted to DCLD-PCAS approved independent testing laboratory.
- 2.4.1.4 Where applicable, Independent test should only be conducted if the result of the in-plant test shows satisfactory result. DCLD-PCAS shall accept available valid test reports conducted by an approved DCLD-PCAS independent laboratory within one year from the date of the initial assessment, in line with the internal quality control testing plan of the factory. In such case, the testing of that particular parameter(s) shall be waived accordingly.

#### 2.4.2 Product Evaluation

2.4.2.1 Samples collected as per Clause 8 of the Standard Specification shall be subjected to in plant and independent test for the following properties:

For all types of masonry blocks samples [in-plant (mandatory) + independent]

- 2.4.2.1.1 Dimensional tolerance
- 2.4.2.1.2 Compressive strength / durability aspect
- 2.4.2.1.3 Shape / visual aspect (appearance /special texture, if described)

For all types of Hollow/Cellular Masonry Blocks samples [in-plant (mandatory) + independent]

2.4.2.1.4 External shell and web thickness

For any type of normal and light masonry block sample regardless of whether it is solid or hollow [in-plant (optional) + independent]

- 2.4.2. 1.5 Chloride and Sulphate content
- 2.4.2. 1.6 Drying Shrinkage
- 2.4.2. 1.7 Thermal conductivity, (if declared)
- 2.4.2. 1.8 Net Density
- 2.4.2.2 If the factory is outsourcing the routine tests to an accredited laboratory, in-plant tests may be waived, provided that records of routine tests are available and in-line with the frequency of testing as per DM-DCLD-RD-DP21-2090 (IC).

Approved by HOU	Authorized by PCASM
Date of Issue : 26/09/2021	Rev. No. : 08
درجة السرية / Level of Confidentiality : عام / General	Page 5 of 8



Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:
Document Title:	Specific Rules for FA Certification of Precast Concrete Masonry Blocks as per DMS 1 Part 1: 2020	عنوان الوثيقة:
Doc Ref.	DM-DCLD-RD-DP21-2169 (IC)	رقم الوثيقة:



- 2.4.2.3 Results of both the in plant and independent tests shall comply with clauses 5, 6 and 7 of the Standard Specification.
- 2.4.2.4 If the result of the test conducted by the DCLD-PCAS approved independent testing laboratory shows non-conformance to the specified requirements. The retest shall be carried out on the reference sample kept by the manufacturer or on new samples collected by the authorized auditor, on which full testing shall be carried out, if necessary.
- 2.4.2.5 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.
- 2.4.2.6 Durability and visual aspects shall be met as per clause 6 and 7 of DMS 1 Part 2:2020 respectively.
- 2.4.2.7 Only after reassessment and subsequent product compliance shall the client be allowed to use DCL Conformity Mark on his product(s

### 3. GRANTING OF THE DCL PRODUCT CONFORMITY CERTIFICATE

- 3.1 CONDITIONS FOR GRANTING THE DCL PRODUCT CONFORMITY CERTIFICATE
- 3.1.1 When the results of the factory audit (clause 2.3) and product evaluation (clause 2.4) show conformity to the requirements specified in the General Rule and Specific Rule, the Certificate of Conformity and authorization to use the DCL Conformity Mark shall be issued to the client for the type(s) and size of the product tested.
- 3.1.2 The client shall agree with DCLD-PCAS 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. It shall consist of (1) an internal product quality assurance plan, and (2) an independent testing plan.
- 3.1.3 Factory Production Control System (Internal Product Quality Assurance Plan)

The client shall have an internal product quality assurance plan giving details of the tests to be carried out at the factory, which shall conform to DM-DCLD-RD-DP21-2090 (IC)

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.

# 3.1.4 Independent Testing Plan

Approved by HOU	Authorized by PCASM
Date of Issue : 26/09/2021	Rev. No. : 08
درجة السرية / Level of Confidentiality : عام /	Page 6 of 8



Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:
Document Title:	Specific Rules for FA Certification of Precast Concrete Masonry Blocks as per DMS 1 Part 1: 2020	عنوان الوثيقة:
Doc Ref.	DM-DCLD-RD-DP21-2169 (IC)	رقم الوثيقة:



The client shall agree to an independent testing plan to be carried out on samples which are collected in accordance with DM-DCLD-RD-DP21-2096 (IC) — Surveillance of the Certified Clients under the Factory Assessment Scheme, and implemented by DCLD-PCAS.

### 3.2 ISSUANCE OF DCL PRODCUT CONFORMITY CERTIFICATE

If the conditions mentioned in clause 3.1 above have been complied, the client shall be issued a DCL Certificate of Conformity and a Scope of Certification that covers the type(s) and size of the products that are certified and will be authorized to use the DCL Conformity Mark on the certified products.

#### 3.3 RESPONSIBILITIES OF THE CERTIFIED CLIENT

- 3.3.1 The client shall ensure that his product, for which a certificate of conformity 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.
- 3.3.2 The client shall give the duly authorized auditor(s), 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.
- 3.3.3 The client shall inform DCLD-PCAS in writing of any change of management, transfer of plant site, modification in the product, manufacturing process or factory's quality management system.
- 3.3.4 Upon transfer of plant site, the certificate of conformity of conformity shall be deemed valid only after factory and product audit at the new site has been satisfactorily completed.
- 3.3.5 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 termination of certification in accordance with DM-DCLD-IMS-RD-07.
- 3.3.6 Any dispute that may arise in connection with the Terms and Conditions of the certification scheme shall be settled in accordance with DM-DCLD-IMS-RD-08 Appeals, Disputes, and Complaints Procedure.
- 3.3.7 The client shall pay all applicable fees related to the certification process.

Approved by HOU	Authorized by PCASM
Date of Issue : 26/09/2021	Rev. No. : 08
درجة السرية / Level of Confidentiality : عام /	Page 7 of 8



Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:
Document Title:	Specific Rules for FA Certification of Precast Concrete Masonry Blocks as per DMS 1 Part 1: 2020	عنوان الوثيقة:
Doc Ref.	DM-DCLD-RD-DP21-2169 (IC)	رقم الوثيقة:



- 3.4 USE OF THE DCL CONFORMITY MARK
- 3.4.1 The design and use of the DCL Conformity Mark shall be in accordance with the Terms and Conditions for the Use of the DCL Conformity Mark, DM-DCLD-IMS-RD-13
- 3.4.2 The client shall submit a product-marking proposal for approval by DCLD-PCAS. The proposal shall include drawings and/or diagrams showing the location and size of the marking for each size of the product..
- 3.4.3 The Certificate of Conformity and the authorization to use the DCL Conformity Mark is non-transferable.

#### 4. SURVEILLANCE

- 4.1 DCLD-PCAS shall carry out periodic surveillance to ensure consistent compliance with the requirements of this certification scheme as per DM-DCLD-RD-DP21-2096 (IC) Surveillance of Certified Establishments under the Factory Assessment Scheme.
- 4.2 Testing as part of the surveillance shall be in accordance with the Independent Testing Plan (clause 3.1.4) that has been agreed between DCLD-PCAS and the client.

### 5. FEE SCHEDULE

The client shall pay the applicable fees and charges related to the granting of the certificate of conformity and the authorization to use the DCL Conformity Mark based on DCL Official Fee Structure, DM-DCLD-RD-DP21-2089 (IC) for block factories under FA scheme (IC).

- 5.1 The fees for this certification scheme shall include but not limited to the following
  - 5.2.1 Application Fee
  - 5.2.2 Initial Assessment Fee
  - 5.2.3 Certification Fee
  - 5.2.4 Marking Fee
  - 5.2.5 Surveillance Fee
  - 5.2.6 Annual Renewal Fee
  - 5.2.7 Testing Fee
  - 5.2.8 Outsource Activity Fee , where applicable

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Approved by HOU	Authorized by PCASM
Date of Issue : 26/09/2021	Rev. No. : 08
درجة السرية / Level of Confidentiality : عام / General	Page 8 of 8