

 GOVERNMENT OF DUBAI	<b>Organization/Unit:</b> إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:	 بلدية دبي DUBAI MUNICIPALITY
	<b>Document Title:</b> Specific Rules for Type 1 Certification of Glazed Glass as per Clause {501.01B} of the Al Sa'fat Dubai Green Building Evaluation System	عنوان الوثيقة:	
	<b>Doc Ref.</b> DM-DCLD-RD-DP32-5103 (IC)	رقم الوثيقة :	

Issue Date	Rev. No.	Summary Of Amendments
06-07-2011	0	First draft for comments
12-07-2011	0	Final draft
21-07-2011	1	Issue for use
08-08-2011	2	Additional provision for re-sampling
06-08-2015	3	Aligning with ISO/IEC 17067 by changing terminology to Type 1 Adding clause 3 for issuance of the certificate.
04-05-2016	4	Allowing Type 1a certification
25-12-2017	5	Amended to change the validity of the certificate.
01-07-2018	6	Updated the requirements as per 2017 Al Sa'fat Green Building Evaluation System; format updated as per DM unified template
11-04-2019	7	Updated as per new DM logo

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## 1. GENERAL

This document is a Specific Rule for a Type 1 certification of the product covered by the Standard Specification or Regulation defined herewith. The Type 1 certification system is in accordance with ISO/IEC 17067 and described in DM-DCLD-RD-DP32-5001 (IC) General rules for Type 1 product certification.

## 2. CERTIFICATION REQUIREMENTS

### 2.1 Regulation (REG)

Regulation No.	Not Applicable
Title of Regulation (REG)	2017 Al Sa'fat Dubai Green Building Evaluation System
Applicable Clause	Al Sa'fat Clause [501.01 B] Glazed Elements - Fenestration

### 2.2 Tests to be carried out on each sample (The test shall be carried out at an independent laboratory, preferably at DCLD):

S/N	Properties to be Determined	Test Method	Requirements (as per REG)
1	Thermal Transmittance	EN 673, ASHRAE or any equivalent test method	As per clause 501.01 B Section 1 to 6 (See Annex A)
2	Shading Coefficient	EN 410 Clause 4.4 or any equivalent test method	
3	Light Transmittance	EN 410 Clause 4.2 & 4.3 or any equivalent test method	

### 2.3 Sampling under Type 1a

2.3.1 Under Type 1a, the sample(s) to be tested shall be submitted by the applicant or his designated representative.

2.3.2 The quantity of sample to be submitted shall be in accordance with the requirements of the applicable test method(s).

### 2.4 Sampling under Type 1b

2.4.1 The population of the product (batch) shall be defined prior to sampling. The members of the batch shall be of uniform physical description (i.e. same size shape, dimensions, etc.) and shall be distinctly identified by any appropriate means (For example: by batch number, quantity, location, heat number, markings, dimensions, etc. or a combination of them).

2.4.2 Based on the defined batch and the tests to be carried out as per clause [2.2], the Certification Body shall prepare a "Sampling and testing plan" that will give details of the number of samples and the tests

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to be carried out on each selected sample. The applicant for certification shall agree to the sampling and testing plan.

- 2.4.3 The sampling and testing plan shall take guidance from DM-DCLD-RD-DP32-5003 (IC) "Guidance for preparing sampling and testing plan"; and shall be prepared in such manner that will provide highest confidence that the sample represents the entire population of product being certified.
- 2.4.4 In case the sample fails to meet the requirements, the applicant may request for re-sampling and re-testing from the same batch of product/s, in accordance with the agreed sampling plan. If the new sample again fails to meet the requirements, the product shall be considered non-conforming and no certificate shall be issued.

### 3. ISSUANCE OF TYPE 1 CERTIFICATE

#### 3.1 Type 1a Certificate of Conformity

- 3.1.1 The Type 1a certificate shall be issued only when results are meeting the applicable requirements as mentioned in clause [2.2].
- 3.1.2 The certificate is applicable only to the product that was subjected to testing. It does not represent any quantity, batch or lot or any subsequent production.

#### 3.2 Type 1b Certificate of Conformity

- 3.2.1 The Type 1b certificate shall be issued only when results are meeting the applicable requirements as mentioned in clause [2.2].
- 3.2.2 The certificate is applicable only to the quantity of product defined and identified as per clause [2.3.1]. It does not apply to the entire production of the factory.
- 3.2.3 The Type 1b certificate is valid for 3 months only.
- 3.3 The Type 1b certificate shall be issued upon payment of fees in accordance with DM-DCLD-RD-DP32-5002 (IC).

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### Annex A

#### B. Glazed Elements - Fenestration:

1. If the total area of external walls that let in light is forty per cent (40%) or less of the external wall area, then the glazing elements must meet the following performance criteria:

Thermal Transmittance (Summer U value):  $U = 2.1 \text{ W/m}^2\text{K}$  (max)

Shading Coefficient (SC): 0.4 (max)

Light Transmittance: 0.25 (min)

2. If the total area of external walls that let in light is between forty percent (40%) and sixty percent (60%) of the external wall area, then the glazing elements must meet the following performance criteria:

Thermal Transmittance (Summer U value):  $U = 1.9 \text{ W/m}^2\text{K}$  (max)

Shading Coefficient (SC): 0.32 (max)

Light Transmittance: 0.1 (min)

3. If the total area of external walls that let in light is sixty percent (60%) or greater of the external wall area, then the glazing elements must meet the following performance criteria:

Thermal Transmittance (Summer U value):  $U = 1.9 \text{ W/m}^2\text{K}$  (max)

Shading Coefficient (SC): 0.25 (max)

Light Transmittance: 0.1 (min)

4. For shopfronts and showrooms, other than those at ground floor level, glazing elements must meet the following performance criteria:

Thermal Transmittance (Summer U value):  $U = 1.9 \text{ W/m}^2\text{K}$  (max)

Shading Coefficient (SC): 0.76 (max)

5. If the glazing portion of a roof is ten percent (10%) or less of the roof area, then the glazing elements must meet the following performance criteria:

Thermal Transmittance (Summer U value):  $U = 1.9 \text{ W/m}^2\text{K}$  (max)

Shading Coefficient (SC): 0.32 (max)

Light Transmittance: 0.4 (min)

6. If the glazing portion of a roof is greater than ten percent (10%) of the roof area, then the glazing elements must meet the following performance criteria:

Thermal Transmittance (Summer U value):  $U = 1.9 \text{ W/m}^2\text{K}$  (max)

Shading Coefficient (SC): 0.25 (max)

Light Transmittance: 0.3 (min)

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