

 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> Type 1B Specific Rules for Hot Dipped Galvanized Coatings on Fabricated Iron and Steel as per BS EN ISO 1461: 2009	عنوان الوثيقة:	
	<b>Doc Ref.</b> DM-DCLD-RD-DP32-5115 (IC)	رقم الوثيقة :	

Issue Date	Rev. No.	Summary Of Amendments
13-03-2016	0	First draft for comments
04-04-2016	1	Issue for use
11-04-2019	2	Updated format as per new DM template and logo

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## 1. GENERAL

This document is a Specific Rule for a Type 1b certification of the product covered by the Standard Specification defined herewith. In order to grant the certification, the applicant and product shall comply with this Specific Rules and with the General Rules for Type 1 certification system as per RD-DP32-5001 (IC).

## 2. CERTIFICATION REQUIREMENTS

### 2.1 Standard Specification (SS)

Standard Specification No.	BS EN ISO 1461: 2009
Title of Standard Specification	Hot dip galvanized coatings on fabricated iron and steel articles – Specifications and test methods

### 2.2 Sampling

2.2.1 The population of the product (batch or lot) shall be defined prior to sampling. The members of the batch shall be of uniform physical description and shall be distinctly identified by any appropriate means (For example: by production batch number, quantity, production date or code, or a combination of them).

2.2.2 Based on the defined batch or lot to be certified, the Certification Body shall prepare a sampling plan (Form No. F-IC-5006) that will give details of the number of articles/specimen to be selected to comprise the sample to be tested. The preparation of the plan shall be in accordance with the SS clause [5] "Acceptance inspection and sampling" and SS Table 1.

2.2.3 In accordance with the sampling plan in [2.2.2], the Certification Body shall randomly select the number of articles/specimen in the sample to be tested.

### 2.3 Testing

#### 2.3.1 Number of tests to be carried out on the sample:

Based on the sample selected under clause [2.2], the number of Reference Area(s) to be tested shall be decided in accordance with the SS clause [6.2.3] and SS Table 2 (refer to Annex A.1). The coating thickness in each reference area shall be tested.

#### 2.3.2 Tests to be carried out

S/N	Properties to be Determined	Test Method	Requirements (Pass/Fail Criteria) as per the SS
1	Thickness of coating (magnetic)	BS EN ISO 1461 and ISO 2178	As per Table 3 or 4 of the SS (whichever is applicable) Refer to Annex A.2
2	Thickness of coating (gravimetric) Applicable only in case of retest or when requested by client)	BS EN ISO 1460	As per Table 3 or 4 of the SS (whichever is applicable) Refer to Annex A.2

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2.3.5 In case the sample fails to meet the requirements, the applicant may request for re-sampling and re-testing from the same batch of products, in accordance with the agreed sampling plan. Testing shall be according to the gravimetric method as mentioned in [2.3.2]. If the new sample again fails to meet the requirements, the product shall be considered non-conforming and the Evaluation Report will be sent to client. No Certificate will be issued.

### 3. ISSUANCE OF TYPE 1b CERTIFICATE

3.1 The Type 1b certificate shall be issued only when all results are meeting all the requirements as mentioned in clause [2.3].

3.2 The certificate is applicable only to the lot or batch defined and identified as per clause [2.2.1]. It does not apply to the entire production of the factory.

3.2 The Type 1b certificate is valid for 1 year only.

### 4. FEES

4.1 The fees for Type 1b certification shall be in accordance with RD-DP32-5002 (IC).

4.2 Testing fees shall be paid directly to the designated independent testing laboratory.

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Annex A Requirements as per Standard Specifications

A.1 Standard Specifications Clause [6.2.3]

**6.2.3 Reference areas**

The number and position of reference areas and their sizes for the magnetic or gravimetric test shall be chosen with regard to the shapes and sizes of the article(s) in order to obtain a result as representative as possible of mean coating thickness or mass per unit area, as applicable. On a long article in the control sample, the reference areas shall be cut approximately 100 mm from the edges and 100 mm from each end and the approximate centre, and shall comprise the whole cross-section of the article.

The number of reference areas, dependent upon the size of the individual articles in the control sample, shall be as identified in Table 2.

**Table 2 — Required number of reference areas for testing**

Category	Size of significant surface area	Number of reference areas to be taken per article
a	$> 2 \text{ m}^2$	$\geq 3$
b	$> 100 \text{ cm}^2$ to $\leq 2 \text{ m}^2$	$\geq 1$
c	$> 10 \text{ cm}^2$ to $\leq 100 \text{ cm}^2$	1
d	$\leq 10 \text{ cm}^2$	1 on each of $N$ articles

NOTE  $2 \text{ m}^2 = 200 \text{ cm} \times 100 \text{ cm}$ ;  $100 \text{ cm}^2 = 10 \text{ cm} \times 10 \text{ cm}$ .

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## A.2 Tables for minimum coating thickness and mass

**Table 3 — Minimum coating thickness and mass on samples that are not centrifuged**

Article and its thickness	Local coating thickness (minimum) <sup>a</sup>	Local coating mass (minimum) <sup>b</sup>	Mean coating thickness (minimum) <sup>c</sup>	Mean coating mass (minimum) <sup>b</sup>
	μm	g/m <sup>2</sup>	μm	g/m <sup>2</sup>
Steel > 6 mm	70	505	85	610
Steel > 3 mm to ≤ 6 mm	55	395	70	505
Steel ≥ 1,5 mm to ≤ 3 mm	45	325	55	395
Steel < 1,5 mm	35	250	45	325
Castings ≥ 6 mm	70	505	80	575
Castings < 6 mm	60	430	70	505

NOTE This table is for general use: individual product standards may include different requirements including different categories of thickness. Local coating mass and mean coating mass requirements are set out in this table for reference in such cases of dispute.

<sup>a</sup> See 3.8.  
<sup>b</sup> Equivalent coating mass using a nominal coating density of 7,2 g/cm<sup>3</sup> (see Annex D).  
<sup>c</sup> See 3.9.

**Table 4 — Minimum coating thickness and mass on samples that are centrifuged**

Article and its thickness	Local coating thickness (minimum) <sup>a</sup>	Local coating mass (minimum) <sup>b</sup>	Mean coating thickness (minimum) <sup>c</sup>	Mean coating mass (minimum) <sup>b</sup>
	μm	g/m <sup>2</sup>	μm	g/m <sup>2</sup>
Articles with threads:				
> 6 mm diameter	40	285	50	360
≤ 6 mm diameter	20	145	25	180
Other articles (including castings):				
≥ 3 mm	45	325	55	395
< 3 mm	35	250	45	325

NOTE This table is for general use: fastener coating standards and individual product standards may have different requirements: see also A.2.h). Local coating mass and mean coating mass requirements are set out in this table for reference in such cases of dispute.

<sup>a</sup> See 3.8.  
<sup>b</sup> Equivalent coating mass using a nominal coating density of 7,2 g/cm<sup>3</sup> (see Annex D).  
<sup>c</sup> See 3.9.

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