

 GOVERNMENT OF DUBAI	Organization/Unit:	إدارة مختبر دبي المركزي Dubai Central Laboratory Department	الوحدة التنظيمية:	 بلدية دبي DUBAI MUNICIPALITY
	Document Title:	Specific Rules for FA Certification of Steel for Reinforcement of Concrete as per ISO 6935-2: 2015	عنوان الوثيقة:	
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Issue Date	Rev. No.	Summary Of Amendments
27-12-2012	0	First draft for comments
06-01-2013	0	Final draft
09-01-2013	1	Issue for use
26-02-2017	2	Reviewed with the requirements of the current version of the standard (ISO 6935-2: 2015) and found to be still suitable. Likewise, change the name of the section from Inspection and Certification Section to Products Conformity Assessment Section and the licensee by client.
11-03-2019	3	Updated format as per new DM template and new DM logo

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1. GENERAL

1.1 INTRODUCTION

1.1.1 This document prescribes the specific rules for the implementation of the DM Third Party Product Certification System 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** to those already mentioned in the “General Rules for DM Third Party Product Certification System Through Factory Assessment” **RD-DP21- 2001 (IC)**.

1.2 SCOPE

1.2.1 This specific rule covers requirements for ribbed steel bars for reinforcement of concrete. It covers **thirteen steel grades not intended for welding** which are B300A-R, B300B-R, B300C-R, B300D-R, B400A-R, B400B-R, B400C-R, B500A-R, B500B-R, B500C-R, B600A-R, B600B-R & B600C-R, and **thirteen steel grades intended for welding** which are B300DWR, B350DWR, B400AWR, B400BWR, B400CWR, B400DWR, B420DWR, B450AWR, B450CWR, B500AWR, B500BWR, B500CWR & B500DWR. The steel grades are designated with steel names allocated in accordance with ISI/TS 4949. This part of 6935 covers products delivered in straight lengths.

1.3 PRODUCT IDENTIFICATION AND APPLICABLE STANDARD/NORMATIVE REFERENCE

- 1.3.1 Product Name: Steel for the reinforcement of concrete- Ribbed bars
- 1.3.2 Applicable standard/Normative reference: ISO 6935-2:2015 (E)– Steel for the reinforcement of concrete- Part 2 : Ribbed bars
- 1.3.3 Additional References:
- ISO 9001 - Quality Management System – Requirements
 ISO 19011 - Guidelines for Quality and Environmental Management System Auditing.

1.4 DEFINITION OF TERMS

In addition to the definitions given in **ISO 6935-2, RD-DP21-2001 (IC)**, the following shall also apply:

- 1.4.1 Independent Testing Laboratory - Dubai Central Laboratory (DCL) or any testing laboratory recognized by the DM Certification Body.
- 1.4.2 Independent Test – test performed or conducted by an Independent Testing Laboratory
- 1.4.3 Standard Specification – **ISO 6935-2:2015 (E)**– Steel for the reinforcement of concrete- Part 2 : Ribbed bars
- 1.4.4 Factory Production Control System (Product Quality Assurance Plan) - a document being agreed upon both by the client and the certification body being used to ensure continuous compliance of the certified product.
- 1.4.5 QMS – Quality Management System aligned with the requirements of ISO 9001 Standard.

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2. REQUIREMENTS FOR CERTIFICATION

2.1 APPLICATION

2.1.1 Manufacturers of reinforcement ribbed steel bars shall apply to Dubai Central Laboratory through Products Conformity Assessment Section for the authorization to use the DCL Conformity Mark.

2.1.2 Application forms shall be filled-up by the applicant-company and submitted to DCLD together with the following documents

- a. Industrial Trade License
- b. Complete Product Description and Specifications
- c. Brief Description of Manufacturing Process
- d. Copy of the Quality Manual (Controlled Copy– In English)
- e. Vicinity Map and Factory Layout
- f. Valid Certification to ISO 9001 (if available)
- g. List of key personnel and their designation
- h. Total number of effective personnel involved in the manufacture of the product (technical, managerial, and support personnel)
- i. List of available testing equipment and tests conducted internally
- j. Others

2.2 FACTORY OPERATION

2.2.1 Quality Management System

Manufacturer of reinforcement ribbed steel bars shall have a Quality Management System that is aligned to the requirements of ISO 9001 standard. NOTE: Certification to ISO 9001 is not a mandatory requirement.

2.2.2 Laboratory

Manufacturer of reinforcement ribbed steel bars shall have a quality assurance laboratory to carry out factory production control testing to ensure that the reinforcing steel bars and coils comply with the requirements of the standard specification.

As a minimum requirement, the laboratory shall have the following testing equipment:

- a. Calipers and other linear measuring test equipments
- b. Weighing Scale (with an accuracy of 100 grams)
- c. Chemical Analyzer
- d. Tensile Test Equipment
- e. Bend Test Equipment

2.2.3 Bar Marking Requirements

The manufacturer of reinforcement ribbed steel bars shall submit to DCLD a unique bar marking requirements of their products for approval. The DCLD approved mark shall be applied to the products covered by the certification.

Product Marking shall be as per the General Rules on the Markings and Tags of Steel Bars,

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RD-DP21-2091 (IC) and clause 11 of the standard specification.

2.3 INITIAL FACTORY AUDIT

2.3.1 DCL duly authorized representatives shall conduct an audit of the factory quality management system to verify its compliance with the requirements of ISO 9001.

NOTE: An independent certification to ISO 9001 issued by a QMS certification body recognized by DM may be considered as having satisfied this requirement; however, the DM Certification Body reserves the right to carry out verification audit to confirm that the factory is in compliance with the QMS requirements.

2.3.2 Verification audit shall be conducted by designated audit team based on ISO 19011 – Guidelines for Quality and Environment Management System Auditing.

2.4 PRODUCT EVALUATION

2.4.1 Sampling Testing

2.4.1.1 Three sets of samples per size within the size range shall be taken randomly. The first set shall be tested in the plant supervised by a duly authorized DCLD-PCAS representative, the second set will be sent to independent testing laboratory. The third set will be kept by the manufacturer as reference for future use.

2.4.1.2 Test sample(s) for independent test shall be identified and signed in the presence of DCL representative and shall be submitted to an independent testing laboratory.

2.4.1.3 Number of Samples for testing shall be at least 10 pieces by one meter length per size within the size range per grade.

2.4.2 Product Evaluation

2.4.2.1 The product shall conform to the requirements as specified in clauses 5, 6,7, 8, 10 and 11 of the standard specification.

2.4.2.2 Tests to be carried out in accordance with the standard specification requirements (refer also to clause 9) and shall have values as follow;

2.4.2.2.1 Dimensions, mass per unit length and permissible deviation shall be as per Table 2.

2.4.2.2.2 Nominal length shall not deviate by +100 mm and no negative tolerance or as agreed at the time of enquiry and order.

2.4.2.2.3 Rib requirements shall conform to table 3 and clause 6.

2.4.2.2.4 Chemical composition as stated in clause 7 , shall be as per Table 4 (cast analysis) and table 5 (product analysis) **Note:** ASTM E:415:2005 maybe used in determining the chemical analysis

2.4.2.2.5 Tensile requirements shall be as per table 6 and clause 8.1 of the standard specifications.

2.4.2.2.6 Bending and Rebending as described under clause 8.2 and 8.3 and tested as per 9.3 and 9.4 shall show neither rupture nor cracks visible to a person of normal or corrected vision.

2.4.2.2.7 Fatigue strength shall comply with clause 8.4 and 9.5 of the standard specification. However, previously carried out Fatigue Tests by a laboratory that meets the

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requirements of RD-IC-0003, maybe accepted by the DCLD-PCAS, if available.

2.4.2.2.8

2.4.2.2.9 Marking of steel bars and bundles shall be as per clause 11 of the standard specifications and the DCL Approved Steel Bar Marking attached on every DCL certificate & scope of certification (after DCL certification had been granted).

2.4.2.3 Independent test shall only be conducted if the result of the in-plant test shows satisfactory result.

2.4.2.4 If the result of the test conducted by the independent testing laboratory shows non-conformance, the retest shall be carried out on the reference sample kept by the manufacturer or on new samples collected by DM Certification Body , 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.

3. GRANTING OF THE DCL PRODUCT CONFORMITY CERTIFICATE

3.1 CONDITIONS FOR GRANTING THE DCL 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 authorization to use the DCL Conformity Mark shall be issued to the manufacturer for the type(s) and size range of the product tested.

3.1.2 The factory shall agree with the DM Certification Body 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 factory shall prepare and submit to DM Certification Body for approval a factory production control system (internal product quality assurance plan).

The plan shall take into consideration the production process, the volume of production, the criticality of the test to be specified, frequency of sampling and testing, and other relevant factors.

Frequency of sampling and testing shall be in accordance with annex E of the standard specification.

3.1.4 Independent Testing Plan

The factory 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 Certified establishments under the Factory Assessment Scheme, and implemented by the DM Certification Body. The cost of testing under the independent testing plan shall be borne by the factory.

3.2 ISSUANCE OF DCL PRODUCT CONFORMITY CERTIFICATE

If the conditions mentioned in clause 3.1 above have been complied, the manufacturer shall be issued a DCL Conformity Certificate and Scope of Certification that covers the sizes and grades of the products that are certified.

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3.3 RESPONSIBILITIES OF THE CERTIFIED CLIENTS

- 3.3.1 The certified 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 Rules and Specific Rules and shall maintain to the satisfaction of DCL, a system of quality control including inspection and testing.
- 3.3.2 The certified client shall give the duly authorized representative(s) of DCL, 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 certified client shall inform the DM Certification Body 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 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 cancellation of the Certificate of Conformity against a certified client.
- 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 the General Rule for DM Third Party Product Certification System through Factory Assessment.
- 3.3.7 The certified client shall pay all applicable fees related to the certification process.

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 Markings and Tag Requirements for the Control of Reinforcing Steel Bars in the Emirate of Dubai, DM-DCLD-RD-DP21-2091 (IC), and the terms and conditions for the use of the DCL Mark of Conformity, DM-DCLD-IMS RD-13.
- 3.4.2 The certified client shall submit a product-marking proposal for approval by the DM Certification Body. The proposal shall include drawings and/or diagrams showing the location and size of the marking for each size of the product/product container.
- 3.4.3 The authorization to use the DCL Conformity Mark is non-transferable.

4. SURVEILLANCE

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

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5. FEE SCHEDULE

- 5.1 The certified client shall pay the applicable fees and charges related to the granting of the Certificate of Conformity to use the DCL Mark based on the DCL Official Fee Structure for the control of reinforcing steel bars in the Emirate of Dubai, DM-DCLD-RD-DP21-2092 (IC).

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