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Development Bureau
Technical Circular (Works) No. 1/2024

Product Certification for Steel Reinforcing Bars
of Reinforced Concrete in Capital Works Contracts

Scope

This Circular sets out the policy on the implementation of product certification¹ for steel reinforcing bars² of reinforced concrete in capital works contracts.

Effective Date

2. This Circular takes immediate effect.

¹ For the avoidance of doubt, the product certification mentioned herein shall pertain to third-party product certification for Quality Assured (QA) Manufacturers.

² Due to current market supply conditions, implementation of product certification for coil and decoiled products shall be on a voluntary basis.

Effect on Existing Circulars and Circular Memoranda

3. This Circular has no effect on existing circulars and circular memoranda.

Background

4. Product certification is an internationally recognized approach to enhance product quality through upstream control. It is a process that a third party certification body, after undertaking a series of specified procedures such as initial type testing, surveillance audits and periodic re-evaluation, issues a product conformity certificate to the manufacturer confirming that its product satisfies the specified technical requirements.

5. For the steel reinforcing bars possessing a product certification complying to the Construction Standard – Steel Reinforcing Bars for the Reinforcement of Concrete (CS2:2012), it is guaranteed that upstream quality control has been diligently carried out during the manufacturing process of the steel reinforcing bars to ensure their compliance with the required standards for traceability, quality or performance by an independent third party certification body.

6. As part of the Government's comprehensive efforts to enhance the quantity, speed, efficiency and quality of the construction industry, the use of product-certified steel reinforcing bars is highly encouraged. Given the enhanced upstream quality control enabled by product certification, it is considered that the rate of purchasers testing for product-certified steel reinforcing bars could be reduced accordingly.

Policy

7. This Circular promulgates the implementation of the product certification for steel reinforcing bars of reinforced concrete in capital works contracts with an aim to enhancing the product quality through upstream control, lowering the risk of failure in on-site compliance testing, reducing rate of purchasers testing, thereby achieving time and cost saving in construction phase.

The implementation framework and product certification requirements are enclosed in **Annex I**, which designates steel reinforcing bars that satisfy the product certification requirements as product-certified reinforcement.

8. All new capital works contracts of which the tenders are to be invited **on or after 1 April 2024** shall observe the requirements as set out in this Circular and incorporate the sample contract provisions at **Annex II** as appropriate. For capital works contracts tendered before 1 April 2024, project officers should incorporate the requirements as set out in this Circular on a voluntary basis, as appropriate.

9. Should there be persistent quality issues of a particular type of product-certified reinforcement, appropriate contractual actions should be taken by the managing works departments with proper documentation. The procedures on handling of non-conforming steel reinforcing bars have been set out in the Construction Standard – Steel Reinforcing Bars for the Reinforcement of Concrete (CS2:2012).

Exemption

10. Product-certified reinforcement should be used (coil and decoiled products on a voluntary basis) for all new capital works contracts of which the tenders are to be invited **on or after 1 April 2024**. Should there be genuine difficulties in using product-certified reinforcement, approval for exemption for a specific period should be obtained from the subject D2³ or above officer of the managing works department and the respective justifications should be properly documented. For the avoidance of doubt, approval for exemption from using product-certified reinforcement for coil and decoiled products is not required.

³ For Capital Subvention Projects under Head 708 of the Capital Works Reserve Fund (CWRF), approval shall be given from an officer at D2 rank or above of the relevant policy bureau.

Enquiries

11. Enquiries on this Circular shall be addressed to Chief Assistant Secretary (Works) 1.

(Ricky C K LAU)
Permanent Secretary for Development (Works)

Product Certification for Steel Reinforcing Bars of Reinforced Concrete in Capital Works Contracts - Implementation Framework

1. Scope

This framework covers steel reinforcing bars (coil and decoiled products on a voluntary basis) for the reinforcement of concrete which fall under the scope of Construction Standard CS2:2012, i.e. Category A as per Clause 15.03 of the General Specification for Civil Engineering Works, 2020 Edition.

2. Requirements and Implementation of Product Certification for Steel Reinforcing Bars (Coil and Decoiled Products on a Voluntary Basis)

All steel reinforcing bars under Category A shall be manufactured by Quality Assured (QA) Manufacturers under a third party product certification¹ (coil and decoiled products on a voluntary basis), traceable to their manufacturers and production data (optional to include heat/cast numbers) and handled by QA Stockists throughout the supply chain. All steel reinforcing bars fulfilling the above requirements shall be classified as product-certified reinforcement. The product-certified reinforcement is equivalent to Class 1 steel reinforcing bars of CS2:2012 when subject to the purchasers testing and rate of testing in accordance with Table 10 of CS2:2012.

3. Requirements of the Third Party Product Certification

- 3.1 The third party product certification shall comply to Construction Standard CS2:2012 for technical requirements, and shall be issued by a certification body accredited by Hong Kong Accreditation Service or its Multilateral Recognition Arrangement partners based on ISO/IEC 17065:2012. The product certification scheme shall be Type 5 as per ISO/IEC 17067:2013.
- 3.2 The certification body shall be independent from the manufacturer and shall not be an associated company² with the manufacturer.

4. Manufacturer's Certificate/Document

- 4.1 For each delivery of product-certified reinforcement, apart from the requirements in Cl.

¹ Product certification ensures the consistency in production quality through continuous surveillance of production process in the factory.

² Associated company means any company which is the holding company or subsidiary company or sister company (i.e. belongs to the same holding company).

3.1.5 & 4.1.3.2 of CS2:2012, the manufacturer shall also supply a copy of product conformity certificate corresponding to that delivery. The product certification number shall be indicated on the manufacturer's certificate/document.

- 4.2 For the avoidance of doubt, only those steel reinforcing bars produced within the scope of a valid product certification (e.g. specified bar sizes and specified factory location) and within the certification validity period shall be regarded as “produced under a third party product certification”.

5. Stockist's Certificate/Document

- 5.1. For each delivery of product-certified reinforcement, apart from the requirements in Cl. 4.1.3.1(a) to (f) of CS2:2012, the stockist shall also state the product certification number corresponding to that delivery in the stockist's certificate.
- 5.2. The stockist's certification of product-certified reinforcement shall state the following statement, authorised by a designated means to indicate that the requirements of this framework are satisfied:

“Certified that the steel reinforcing bars supplied hereon are covered by the manufacturer's Product Conformity Certificate and manufacturer's Test Certificate referenced hereon and have been subjected to the traceable part of our certification to ISO 9001.”

6. Other Specifications

Specifications in CS2:2012 remain valid unless updated or supplemented in this framework.

7. Exemption

Product-certified reinforcement should be used (coil and decoiled products on a voluntary basis) for all new capital works contracts of which the tenders are to be invited on or after 1 April 2024. Should there be genuine difficulties in using product-certified reinforcement, approval for exemption for a specific period should be obtained from the subject D2³ or above officer of the managing works department and the respective justifications should be properly documented. Justification for exemption may include insufficient market supply (with written evidence), or minimal usage of steel reinforcing bars for concrete reinforcement (e.g. less than 60 tonnes to be used in the entire contract), etc. For the avoidance of doubt, approval for exemption from using product-certified reinforcement for coil and decoiled products is not required.

³ For Capital Subvention Projects under Head 708 of the Capital Works Reserve Fund (CWRF), approval shall be given from an officer at D2 rank or above of the relevant policy bureau.

**Sample Particular Specification –
Product Certification for Steel Reinforcing Bars
of Reinforced Concrete in Capital Works Contracts**

SECTION 15

STEEL REINFORCEMENT

MATERIALS

Reinforcing steels 15.03S1 Replace Category A of the table in GS Clause 15.03 with the following:

Category	Reinforcement	Compliance
A	Steel reinforcing bar covered by CS2:2012 (including steels for fabric/wire)	<p>PS Clauses 15.03A1 and 15.12A1, in addition to CS2:2012, with the exception of the following, which should follow CS2:2012.</p> <p>1. Steel reinforcing bar with exemption as per PS Clause 15.03A1(2), and;</p> <p>2. Coil and decoiled products which are not product-certified reinforcement as per PS Clause 15.03A1(1)</p>

Product certification 15.03A1 Add the following Clauses after GS Clause 15.03:

(1) Steel reinforcing bars under Category A manufactured by Quality Assured (QA) Manufacturers under a third party product certification, traceable to their manufacturers and production data (optional to include heat/cast numbers) and handled by QA Stockists throughout the supply chain, shall be classified as product-certified reinforcement. The product-certified reinforcement is equivalent to Class 1 steel reinforcing bars of CS2:2012 when subject to the purchasers testing and rate of testing in accordance with Table 10 of CS2:2012.

(2) All steel reinforcing bars under Category A (except coil and decoiled products) shall be manufactured by Quality Assured (QA) Manufacturers under a third party product certification unless approval for exemption from using product-certified reinforcement is obtained from the Engineer/*Project Manager**. Such exemption shall follow Development Bureau Technical Circular (Works) No. 1/2024.

(*delete as appropriate)

(3) The third party product certification shall comply to CS2 for technical requirements, and shall be issued by a certification body accredited by Hong Kong Accreditation Service or its Multilateral Recognition Arrangement partners based on ISO/IEC 17065:2012. The product certification scheme shall be Type 5 as per ISO/IEC 17067:2013.

(4) The certification body shall be independent from the manufacturer and shall not be an associated company with the manufacturer.

(5) For the avoidance of doubt, only those steel reinforcing bars produced within the scope of a valid product certification (e.g. specified bar sizes and specified factory location) and within the certification validity period shall be regarded as “produced under a third party product certification”.

SUBMISSIONS

Particulars of reinforcement

15.12A1 Add the following sub-clauses after GS Clause 15.12(1):

(c) For each delivery of product-certified reinforcement, apart from the requirements in CS2:2012 Cl. 3.1.5 & 4.1.3.2, the manufacturer shall also supply a copy of product conformity certificate corresponding to that delivery. The product certification number shall be indicated on the manufacturer’s certificate/document. In addition to the product conformity certificate, the delivery documentation should include a declaration, from the certification body, confirming that the requirements stated in Clauses 15.03A1(3) and (4) are met.

- (d) For each delivery of product-certified reinforcement, apart from the requirements in CS2:2012 Cl. 4.1.3.1(a) to (f), the stockist's certificate shall indicate the product certification number corresponding to that delivery, and state the following statement (authorised by a designated means to indicate that the requirements of this PS are satisfied):

“Certified that the steel reinforcing bars supplied hereon are covered by the manufacturer’s Product Conformity Certificate and manufacturer’s Test Certificate referenced hereon and have been subjected to the traceable part of our certification to ISO 9001.”