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For enquiries, please contact:
Building Engineering Group (#10-01)
Tel: 1800 3425 222 (1800-DIAL-BCA)
or use our online feedback form at:
<https://www.bca.gov.sg/feedbackform/>

Dear Sir/Madam

REVISED STANDARD - SS EN 13791:2024 ASSESSMENT OF IN-SITU COMPRESSIVE STRENGTH IN STRUCTURES AND PRECAST CONCRETE COMPONENTS

Objective

This circular is to inform the industry on the publication of the revised Singapore standard SS EN 13791:2024 Assessment of In-situ Compressive Strength in Structures and Precast Concrete Components.

Background

2 This circular supersedes the earlier BCA circular dated 24 Sep 2010 (ref: BCA BC 15.0.3).

3 Please note that this revised SS EN 13791:2024 supersedes the earlier SS EN 13791:2009. With the adoption of this 2024 version of the standard, the SS 592: 2013¹ is no longer needed. The SS 592 has been withdrawn and removed from the latest revision of the Approved Document.

4 SS EN 13791:2024 gives methods and procedures for the estimation of in-situ compressive strength and characteristic in-situ compressive strength of concrete in structures and precast concrete components using direct methods (core testing) and indirect methods (e.g. ultra-sonic pulse velocity, rebound number). It also provides guidance for establishing relationships between test results from indirect test methods and the in-situ compressive strength.

¹ SS 592: 2013 - Assessment of in-situ compressive strength in structures and precast concrete components – Complementary guidance to that given in SS EN 13791

Key Changes

5 The key provisions that we wish to highlight are described in the following paragraphs:

- (i) more comprehensive guidance is provided on applying the procedures for defining test result, measurement, volume of concrete, test location, small test region and test region;
- (ii) guidance given on requirements for setting out the purpose of investigation, procedures to be adopted, test methods, test locations and test regions to be defined prior to commencing testing;
- (iii) clause 8 gives guidance on the estimation of compressive strength for structural assessment of an existing structure (e.g. for addition and alteration works);
- (iv) clause 9 gives guidance on the assessment of compressive strength class of concrete in case of doubt (e.g. recently supplied concrete during construction);
- (v) it should be noted that approaches A and B from SS EN 13791:2009 are no longer applicable; and
- (vi) the Singapore National Annex is also included to give additional guidance and complementary provisions for the use of this standard in Singapore.

6 QPs and builders should therefore use this revised standard SS EN 13791:2024 and the corresponding Singapore National Annex when assessing in-situ concrete strength in existing structures and those under construction.

For Clarification

7 We would appreciate if you could disseminate the contents of this circular to your members. Please contact us at Tel 1800-3425222 or through the online feedback form (<https://www.bca.gov.sg/feedbackform/>) should you need any clarification. Thank you.

Yours faithfully



Er. LUNG HIAN HAO
DIRECTOR
BUILDING ENGINEERING GROUP
For COMMISSIONER OF BUILDING CONTROL