Kivistunud betooni katsetamine. Osa 5: Katsekehade paindetõmbetugevus

Testing hardened concrete - Part 5: Flexural strength of test specimens

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12390-5:2009 sisaldab Euroopa standardi EN 12390-5:2009 ingliskeelset teksti.	This Estonian standard EVS-EN 12390-5:2009 consists of the English text of the European standard EN 12390-5:2009.
Standard on kinnitatud Eesti Standardikeskuse 27.03.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 27.03.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 11.02.2009.	Date of Availability of the European standard text 11.02.2009.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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Võtmesõnad: betoon, katsekehad, kivistunud betoon, paindetõmbetugevus

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Testing hardened concrete - Part 5: Flexural strength of test specimens

Essai pour béton durci - Partie 5: Résistance à la flexion sur éprouvettes

Prüfung von Festbeton - Teil 5: Biegezugfestigkeit von Probekörpern

This European Standard was approved by CEN on 27 December 2008.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 12390-5:2009) has been prepared by Technical Committee CEN/TC 104 “Concrete and related products”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2009, and conflicting national standards shall be withdrawn at the latest by August 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12390-5:2000.

It is recognized good practice to include measurement of density prior to the determination of flexural strength, as a check on compaction of the concrete.

The two-point method of loading has been taken as the reference method, but the use of centre-point loading has been included as a normative annex. An inter-comparison of the two-point and the centre-point methods has been made as part of a test programme, part-funded by the EC under the Measurement and Testing Programme, contract MAT I-CT-94-CO43. The centre-point method gave results which were consistently 13 % higher than those from the two-point method.

This standard is one of a series concerned with testing concrete.

The series EN 12390 includes the following parts:

EN 12390 Testing hardened concrete –

Part 1: Shape, dimensions and other requirements for specimens and moulds;

Part 2: Making and curing specimens for strength tests;

Part 3: Compressive strength of test specimens;

Part 4: Compressive strength - Specification for testing machines;

Part 5: Flexural strength of test specimens;

Part 6: Tensile splitting strength of test specimens;

Part 7: Density of hardened concrete;

Part 8: Depth of penetration of water under pressure.

The following amendments have been made to the 2000-10 edition of this standard:

editorial revision

selected loading rate to be applied after the initial (not exceeding approx 20% of the anticipated failure load)

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia,

Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies a method for the determination of the flexural strength of specimens of hardened concrete.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12350-1, *Testing fresh concrete – Part 1: Sampling*

EN 12390-1:2000, *Testing hardened concrete – Part 1: Shape, dimensions and other requirements for test specimens and moulds*

EN 12390-2, *Testing hardened concrete – Part 2: Making and curing specimens for strength tests*

EN 12390-4, *Testing hardened concrete – Part 4: Compressive strength – Specification for testing machines*