

SLOVENSKI STANDARD oSIST prEN 12390-4:2018

01-junij-2018

Preskušanje strjenega betona - 4. del: Tlačna trdnost - Specifikacija za stiskalnice

Testing hardened concrete - Part 4: Compressive strength - Specification for testing machines

Prüfung von Festbeton - Teil 4: Bestimmung der Druckfestigkeit - Anforderungen an Prüfmaschinen

iTeh Standards

Essais pour béton durci - Partie 4 : Résistance à la compression - Caractéristiques des machines d'essai

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Ta slovenski standard je istoveten z: prEN 12390-4

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<u>ICS:</u>

91.100.30 Beton in betonski izdelki

Concrete and concrete products

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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April 2018

ICS 91.100.30

Will supersede EN 12390-4:2000

English Version

Testing hardened concrete - Part 4: Compressive strength -Specification for testing machines

Essais pour béton durci - Partie 4 : Résistance à la compression - Caractéristiques des machines d'essai

Prüfung von Festbeton - Teil 4: Bestimmung der Druckfestigkeit - Anforderungen an Prüfmaschinen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 104.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation. TEN 12390-4:2019

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

oSIST prEN 12390-4:2018

prEN 12390-4:2018 (E)

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European foreword

This document (prEN 12390-4:2018) has been prepared by Technical Committee CEN/TC 104 "Concrete and related products", the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 12390-4:2000.

In comparison with EN 12390-4:2000, the following modifications have been made:

- a) the text is aligned with EN ISO 7500-1 to avoid duplication;
- b) machines to be Class 1 except those manufactured before 2000 where Class 2 is acceptable;
- c) increase in verification points and new limits of acceptance over working range;
- d) description of verification procedure for strain gauge column;
- e) deletion of Annex B.

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

The series EN 12390, *Testing hardened concrete*, is composed of the following parts:

- Part 1: Shape, dimensions and other requirements for specimens and moulds;
- Part 2: Making and curing specimens for strength tests;
- **Document Preview**
- Part 3: Compressive strength of test specimens;
- Part 4: Compressive strength Specification for testing machines;

https://standards.iteb.al/catalog/standards/sist/72016ba8-3a54-4637-984d-2ca2a260e975/sist-en-12390-4-2019 — 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;
- Part 10: Determination of the carbonation resistance of concrete at atmospheric levels of carbon dioxide;
- Part 11: Determination of the chloride resistance of concrete, unidirectional diffusion;
- Part 13: Determination of secant modulus of elasticity in compression;
- Part 14: Semi-adiabatic method for the determination of heat released by concrete during its hardening process (in preparation);
- Part 15: Adiabatic method for the determination of heat released by concrete during its hardening process (in preparation);
- Part 16: Determination of shrinkage of concrete (in preparation);
- Part 17: Determination of creep of concrete in compression (in preparation).

Introduction

The requirements for testing machines set out in this standard have been formulated to satisfy the needs of those compressive tests on concrete specimens which are specified in EN 206. Machines conforming to this standard can be suitable for other uses, but this needs to be carefully considered on an individual test basis. Particular care needs to be taken before using machines conforming to this standard for compressive tests on small specimens, e.g. those with lateral dimensions significantly less than 100 mm. The main concern is that the ball-seating fitted to the upper platen can be too large to align satisfactorily on the top of such small specimens and special adaptations can be required. Another concern is the ability to accurately determine the failure load of small or low strength specimens.

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