DIN EN 12390-2

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Supersedes
DIN EN 12390-2:2009-08,
DIN EN 12390-2
Corrigendum 1:2012-02 and
DIN EN 12390-2/A20:2015-12

Testing hardened concrete – Part 2: Making and curing specimens for strength tests; English version EN 12390-2:2019, English translation of DIN EN 12390-2:2019-10

Prüfung von Festbeton –
Teil 2: Herstellung und Lagerung von Probekörpern für Festigkeitsprüfungen;
Englische Fassung EN 12390-2:2019,
Englische Übersetzung von DIN EN 12390-2:2019-10

Essai pour béton durci –
Partie 2 : Confection et conservation des éprouvettes pour essais de résistance;
Version anglaise EN 12390-2:2019,
Traduction anglaise de DIN EN 12390-2:2019-10

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In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

National foreword

This document (EN 12390-2:2019) has been prepared by Technical Committee CEN/TC 104 “Concrete and related products” (Secretariat: SN, Norway).

The responsible German body involved in its preparation was *DIN-Normenausschuss Bauwesen* (DIN Standards Committee Building and Civil Engineering), Working Committee NA 005-07-05 AA “Test methods for concrete”.

Amendments

This standard differs from DIN EN 12390-2:2009-08, DIN EN 12390-2 Corrigendum 1:2012-02 and DIN EN 12390-2/A20:2015-12 as follows:

a) the standard has been editorially revised;

b) a reference to the apparatus and specifications given in EN 12350-1 has been included.

Previous editions

DIN EN 12390-2: 2001-06, 2009-08
DIN EN 12390-2 Corrigendum 1: 2012-02
DIN EN 12390-2/A20: 2015-12

National Annex
(informative)

Curing conditions for test specimens for compressive strength testing and determining the elastic modulus

NA.1 General

This European Standard specifies methods for making and curing test specimens for strength tests. Curing conditions deviating from those specified in 6.5.3 of this European Standard are permitted.

Such deviating conditions are commonly used in Germany and are expressly required in the relevant material standards on concrete. Therefore, the curing conditions commonly used in Germany for strength testing and for determining the elastic modulus are described in this National Annex.

This annex describes the curing conditions for concrete test specimens in accordance with DIN EN 12390-2:2019-10, 6.5.3, with which the compressive strength $f_{c,dry}$ or the elastic modulus $E_{c,dry}$ are determined.

NA.2 Curing conditions

After they are made, leave the test specimens in the moulds for (24 ± 2) hours in a closed room with an air temperature of 15 °C to 22 °C (the aim should be to achieve a temperature range of (20 ± 2) °C), protected against draughts and dehydration, e.g. by covering them with PE film. During the setting time the specimens are to be protected against shock and vibration, e.g. during transport.

After (24 ± 2) hours remove the specimens from the moulds and cure them for at least 6 days on a grating in a bath of tap water at a temperature of (20 ± 2) °C or on a slatted frame in a humidity chamber at a temperature of (20 ± 2) °C and ≥ 95 % relative humidity.

Take the specimens out of the water bath or humidity chamber at least 21 days prior to testing and cure them on a slatted frame in a closed room at a temperature of 15 °C to 22 °C (the aim should be to achieve a temperature range of (20 ± 2) °C) and a relative humidity of (65 ± 5) %. Specimens are to be protected from direct draughts.

For testing the specimens at an age of 28 days, the specimens shall, as a consequence, be cured for 6 days in a water bath or a humidity chamber after they have been removed from the moulds, and then in a closed room in air under the above mentioned conditions.