

BS EN 12390-11:2015



BSI Standards Publication

Testing hardened concrete

Part 11: Determination of the chloride resistance of concrete, unidirectional diffusion

bsi.

...making excellence a habit.™

This is a preview. [Click here to purchase the full publication.](#)

National foreword

This British Standard is the UK implementation of EN 12390-11:2015. It supersedes DD CEN/TS 12390-11:2010 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/517/1, Concrete production and testing.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2015. Published by BSI Standards Limited 2015

ISBN 978 0 580 88230 2

ICS 91.100.30

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2015.

Amendments issued since publication

Date	Text affected
------	---------------

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12390-11

August 2015

ICS 91.100.30

Supersedes CEN/TS 12390-11:2010

English Version

Testing hardened concrete - Part 11: Determination of the chloride resistance of concrete, unidirectional diffusion

Essais pour béton durci - Partie 11 : Détermination de la résistance du béton à la pénétration des chlorures, diffusion unidirectionnelle

Prüfung von Festbeton - Teil 11: Bestimmung des Chloridwiderstandes von Beton - Einseitig gerichtete Diffusion

This European Standard was approved by CEN on 19 June 2015.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

European foreword	3
Introduction	5
1 Scope	6
2 Normative references	6
3 Term, definitions symbols and abbreviated terms.....	6
3.1 Terms and definitions	6
3.2 Symbols and abbreviated terms	7
4 Principle	8
5 Reagents and apparatus	8
5.1 Reagents	8
5.2 Apparatus	9
6 Preparation of specimens	10
6.1 Preparing sub-specimens	10
6.2 Conditioning and preparation of profile specimen for chloride testing	11
7 Procedure	13
7.1 Exposure conditions	13
7.2 Exposure method.....	14
7.3 Exposure period.....	14
7.4 Determination of initial chloride content (C_i)	14
7.5 Profile grinding	15
7.6 Chloride analysis	16
8 Regression procedure and expression of results	16
9 Test report	19
10 Precision	19
Annex A (informative) Diffusion coefficients	21
Annex B (informative) Core test specimen	22
Annex C (informative) Typical equipment and procedure for vacuum saturation	23
Annex D (normative) Immersion method for large specimens.....	25
Annex E (informative) Guidance on the test procedure	26
Annex F (informative) Examples for calibration of the calculation procedure for regression analysis	28
Bibliography	33