

**Tooted ja süsteemid  
betoonkonstruktsioonide kaitsmiseks ja  
parandamiseks. Katsemeetodid.  
Beton-betonil nakke määramine**

Products and systems for the protection and repair  
of concrete structures - Test methods -  
Determination of adhesion concrete to concrete

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12636:2000 sisaldab Euroopa standardi EN 12636:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12636:2000 consists of the English text of the European standard EN 12636:1999.</p> <p>This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> Käesolev Euroopa standard kirjeldab meetodeid konstruktsioonliimi komponentide nakke mõõtmiseks värske või kivistunud ja kivistunud betoonsubstraatide vahel.</p>	<p><b>Scope:</b></p>
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**ICS** 91.100.30

**Võtmesõnad:**

ICS 91.100.30

English version

Products and systems for the protection and repair  
of concrete structures – Test methods

Determination of adhesion concrete to concrete

Produits et systèmes pour la protection et la réparation des structures en béton – Méthodes d'essais – Détermination de l'adhérence béton sur béton

Produkte und Systeme für den Schutz und die Instandsetzung von Betontragwerken – Prüfverfahren – Bestimmung der Verbundwirkung Beton-Beton

This European Standard was approved by CEN on 1999-04-16.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 104 "Concrete (performance, production, placing and compliance criteria)", 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 november 1999, and conflicting national standards shall be withdrawn at the latest by november 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

It has been prepared by Sub-Committee 8 "Products and systems for the protection and repair of concrete structures" (Secretariat AFNOR).

## 1 Scope

This European Standard describes methods for the measurement of the adhesion of structural bonding agents between fresh or hardened concrete and a hardened concrete substrate.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 196-1, *Methods of testing cement - Part 1 : Determination of strength.*

EN 1542:1999, *Products and systems for the protection and repair of concrete structures - Test methods - Pull-off test.*

prEN 1766, *Products and systems for the protection and repair of concrete structures - Test methods - Reference concretes for testing.*

EN 12189, *Products and systems for the protection and repair of concrete structures - Test methods - Determination of open time.*

## 3 Test method

### 3.1 Hardened concrete-to-hardened concrete

The adhesion between hardened concrete substrates is measured using the results from tensile bending tests performed on pairs of concrete test prisms which have been bonded using the bonding agent under test.

For satisfactory performance of the bonding agent, the tensile bending test should result in fracture in the concrete. When fracture occurs within the bond line it is considered that the structural bonding agent has not performed satisfactorily.

Alternatively, the tensile bending test can be performed in the presence of a longitudinal clamping force where the intended use involves the application of longitudinal prestress.

### 3.2 Fresh concrete-to-hardened concrete

The method for the determination of the bond strength of fresh concrete adhesively bonded to hardened concrete involves coring through the fresh concrete overlay beyond the bonded surface and into the hardened concrete substrate, and then performing a pull off test.

For satisfactory performance of the bonding agent the pull off test should result in fracture in the concrete. When fracture occurs within the bond line it is considered that the structural bonding agent has not performed satisfactorily.