

**Products and systems for the
protection and repair of concrete
structures - Test methods - Shear
adhesion of coated steel to concrete
(pull-out test)**

Products and systems for the protection and repair
of concrete structures - Test methods - Shear
adhesion of coated steel to concrete (pull-out test)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| | |
|--|---|
| <p>Käesolev Eesti standard EVS-EN 15184:2006 sisaldab Euroopa standardi EN 15184:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 27.10.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p> | <p>This Estonian standard EVS-EN 15184:2006 consists of the English text of the European standard EN 15184:2006.</p> <p>This document is endorsed on 27.10.2006 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> |
|--|---|

| | |
|---|---|
| <p>Käsitlusala: This European Standard specifies a method for determining the shear adhesion of steel rebar coated with a corrosion protection product or system and embedded in a standard reference concrete. The test applies to products based on hydraulic binders or polymers or mixtures of both.</p> | <p>Scope: This European Standard specifies a method for determining the shear adhesion of steel rebar coated with a corrosion protection product or system and embedded in a standard reference concrete. The test applies to products based on hydraulic binders or polymers or mixtures of both.</p> |
|---|---|

ICS 91.080.40

Võtmesõnad:

ICS 91.080.40

English Version

Products and systems for the protection and repair of concrete structures - Test methods - Shear adhesion of coated steel to concrete (pull-out test)

Produits et systèmes pour la protection et la réparation des structures en béton - Méthodes d'essais - Adhérence par cisaillement d'acier revêtu au béton (essai d'arrachement)

Produkte und Systeme für den Schutz und die Instandsetzung von Betontragwerken - Prüfverfahren - Haftzugfestigkeit zwischen beschichtetem Stahl und Beton (Ausziehversuch)

This European Standard was approved by CEN on 1 August 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, 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 United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

| | |
|--|----|
| Foreword..... | 3 |
| 1 Scope | 4 |
| 2 Normative references | 4 |
| 3 Terms and definitions | 4 |
| 4 Test principle | 4 |
| 5 Apparatus | 5 |
| 6 Preparation of the test specimens | 5 |
| 7 Execution of the bond test | 8 |
| 8 Test report | 10 |
| Bibliography | 11 |

Foreword

This document (EN 15184:2006) 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 February 2007, and conflicting national standards shall be withdrawn at the latest by February 2007.

This European Standard is one of a series of test method standards on products and systems for protection and repair of concrete structures; particularly it describes a method of testing the shear adhesion of products applied to reinforcing bars.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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 United Kingdom.

1 Scope

This European Standard specifies a method for determining the shear adhesion of steel rebar coated with a corrosion protection product or system and embedded in a standard reference concrete.

The test applies to products based on hydraulic binders or polymers or mixtures of both.

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 196-1, *Methods of testing cement — Determination of strength*

EN 1504-1:2005, *Products and systems for the protection and repair of concrete structures — Definitions requirements, quality control and evaluation of conformity — Part 1: Definitions*

EN 1504-7:2006, *Products and systems for the protection and repair of concrete structures — Definitions requirements, quality control and evaluation of conformity — Part 7: Reinforcement corrosion protection*

ENV 1504-9:1997, *Products and systems for the protection and repair of concrete structures — Definitions requirements, quality control and evaluation of conformity — Part 9: General principles for the use of products and systems*

EN 1766, *Products and systems for the protection and repair of concrete structures — Test methods — Reference concretes for testing*

EN 10080, *Steel for the reinforcement of concrete — Weldable reinforcing steel — General*

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

EN ISO 12944-4, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 4: Types of surface and surface preparation (ISO 12944-4:1998)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1504-1:2005, EN 1504-7:2006 and ENV 1504-9:1997 apply.

4 Test principle

The test compares the shear adhesion of bars coated with a corrosion protection product or system to that of uncoated bars embedded in a standard reference concrete.

The test is carried out using concrete specimens in which coated and uncoated rebars are embedded. A tensile load is applied to one end of the rebar and increased at a controlled rate until failure occurs. The applied force and resulting displacement are measured for each of the coated and uncoated rebars and the results compared.