

**Products and systems for the
protection and repair of concrete
structures - Test methods - Part 1:
Adhesion and elongation capacity of
injection products with limited ductility**

Products and systems for the protection and repair
of concrete structures - Test methods - Part 1:
Adhesion and elongation capacity of injection
products with limited ductility

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12618-1:2003 sisaldab Euroopa standardi EN 12618-1:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 14.08.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12618-1:2003 consists of the English text of the European standard EN 12618-1:2003.</p> <p>This document is endorsed on 14.08.2003 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>Käsitlusala: This part of this European Standard describes the reference procedure for determining the adhesive bond capacity and elongation capacity of injection products, intended for ductile filling of cracks and cavities</p>	<p>Scope: This part of this European Standard describes the reference procedure for determining the adhesive bond capacity and elongation capacity of injection products, intended for ductile filling of cracks and cavities</p>
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ICS 91.080.40

Võtmesõnad: area, binders, defects, grouting materials, grouting mortar, grouting work, hydraulic, materials, protection, protection systems, repair, repairs, specimens, structures, surfaces, tensile strength, testing, testing conditions

ICS 91.080.40

English version

Products and systems for the protection and repair of concrete structures - Test methods - Part 1: Adhesion and elongation capacity of injection products with limited ductility

Produits et systèmes pour la protection et la réparation des structures en béton - Méthodes d'essai - Partie 1: Capacité d'adhérence et d'allongement des produits d'injection à ductilité limitée

Produkte und Systeme für den Schutz und die Instandsetzung von Betontragwerken - Prüfverfahren - Teil 1: Haftung und Dehnung flexibler Füllgüter für Risse

This European Standard was approved by CEN on 7 May 2003.

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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 Management Centre has the same status as the official versions.

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Foreword

This document (EN 12618-1:2003) has been prepared by Technical Committee CEN /TC 104, "Concrete and related products", the secretariat of which is held by DIN.

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

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 January 2004, and conflicting national standards shall be withdrawn at the latest by January 2004.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This part of this European Standard describes the reference procedure for determining the adhesive bond capacity and elongation capacity of injection products, intended for ductile filling of cracks and cavities.

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 (including amendments).

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

EN 1504-1:1998, *Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity - Part 1: Definitions*.

prEN 1504-5:2002, *Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity - Part 5: Concrete injection*.

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

3 Terms and definitions

For the purposes of this European Standard, the definitions of EN 1504-1:1998 and prEN 1504-5:2002 shall apply.

4 Test method

4.1 Principles

The extensibility and tensile bond strength of the product (and the effect of crack width upon these parameters) are determined after injection into cracks of different widths and three moisture conditions of the crack: dry, wet and water-filled.

The elongation and bond strength testing are carried out at (3 ± 2) °C.

4.2 Equipment

4.2.1 Tensile test machine

The laboratory in which these tests are carried out shall be equipped with a test machine complying with the requirements of EN 196-1. The test machine shall be fitted with self aligning application of load to ensure axial tensile loading of the specimen and have a controlled environment cabinet able to maintain constant temperatures of (3 ± 2) °C.

The tensile force shall be at least 50 kN with an adjustable speed of 0,01 mm/min.