

Testing sprayed concrete - Sampling fresh and hardened concrete

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14488-1:2005 sisaldab Euroopa standardi EN 14488-1:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 15.07.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14488-1:2005 consists of the English text of the European standard EN 14488-1:2005.</p> <p>This document is endorsed on 15.07.2005 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 standard specifies a method for obtaining samples of fresh or hardened (i.e. before or after set) sprayed mortar/concrete, depending on the property to be measured and its associated test method</p>	<p>Scope: This European Standard specifies a method for obtaining samples of fresh or hardened (i.e. before or after set) sprayed concrete, depending on the property to be measured and its associated test method.</p>
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ICS 91.100.30

Võtmesõnad: conformity tests, material, mortars, quality assurance programme, reinforced co, sample surveys, self- certification schemes, specification (approval), specifications, sprayed concrete, surveillance (approval), terminology, testing, verification

ICS 91.100.30

English version

Testing sprayed concrete - Sampling fresh and hardened concrete

Essais pour béton projeté - Échantillonnage de béton frais
et de béton durci

Prüfung von Spritzbeton - Probenahme von Frisch- und
Festbeton

This European Standard was approved by CEN on 17 April 2005.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document (EN 14488-1:2005) 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 December 2005, and conflicting national standards shall be withdrawn at the latest by December 2007.

This European Standard is part of a series concerned with testing sprayed concrete.

This series EN 14488 *Testing sprayed concrete* includes the following parts:

- Part 1: Sampling fresh and hardened concrete
- Part 2: Compressive strength of young sprayed concrete
- Part 3: Flexural strengths (first peak, ultimate and residual) of fibre reinforced beam specimens
- Part 4: Bond strength of cores by direct tension
- Part 5: Determination of energy absorption capacity of fibre reinforced slab specimens
- Part 6: Thickness of concrete on a substrate
- Part 7: Fibre content of fibre reinforced concrete

This part does not supersede any other European Standard.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard specifies a method for obtaining samples of fresh or hardened (i.e. before or after set) sprayed concrete, depending on the property to be measured and its associated test method.

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 12350-1, *Testing fresh concrete — Part 1: Sampling*

EN 12504-1, *Testing concrete in structures - Part 1: Cored specimens - Testing, examining and testing in compression*

3 Principle

A sample of fresh or hardened sprayed concrete is extracted from either an in situ element or a test panel.

4 Apparatus

4.1 Scoop, or similar sampling device, made from a non-absorbent material not readily attacked by cement paste, suitable for taking increments of concrete.

4.2 Trowel, or similar cutting device, made from a non-absorbent material not readily attacked by cement paste, suitable for cutting a concrete sample from fresh, in situ sprayed concrete.

4.3 Moulds, of steel or other non-water-absorbing rigid material shall be used (a minimum of 4 mm steel sheet or 18 mm plywood). The minimum plan dimensions shall be 500 mm × 500 mm for hand spraying and 1 000 mm × 1 000 mm for robot spraying. The actual dimensions should be chosen taking into account the type, number and size of samples to be extracted (and avoiding the defective zone). The thickness should be appropriate to the size of test specimens to be cut from the panel, but shall not be less than 100 mm. Appropriate measures shall be taken to avoid entrapment of rebound in the mould (such as chamfered or slotted sides).

4.4 Coring or cutting equipment, suitable for extracting samples of sprayed concrete from a test panel or, where required in situ, to the required dimensions.

5 Procedures

5.1 General

Fresh samples may be extracted from the basic mix, the in situ material or from a test panel. Hardened samples may be cut from the in situ material or from a test panel. It should be noted that the properties at each of these locations may be different, due to the spraying process. The most appropriate sample type and location should be used, which will depend on the purpose of the quality control and on the specimens required for the property or properties to be measured.

A sample of fresh or hardened concrete is extracted in a manner suitable for the required test method.