

**Konstruksiooni betooni katsetamine. Osa 2:
Mittepurustav katsetamine. Põrkearvu määramine**

Testing concrete in structures - Part 2: Non-destructive
testing - Determination of rebound number

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12504-2:2003 sisaldab Euroopa standardi EN 12504-2:2001 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 09.04.2003 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 06.06.2001.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12504-2:2003 consists of the English text of the European standard EN 12504-2:2001.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 09.04.2003 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 06.06.2001.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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ICS 91.100.30

Võtmesõnad: betoon, katsetamine, konstruktsiooni betoon, pörkevasar, tugevus

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Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

English version

Testing concrete in structures

Part 2: Non-destructive testing – Determination of rebound number

Essai pour béton dans les
structures – Partie 2: Essais
non destructifs – Détermination
de l'indice de rebondissement

Prüfung von Beton in Bauwerken –
Teil 2: Zerstörungsfreie Prüfung –
Bestimmung der Rückprallzahl

This European Standard was approved by CEN on 2000-04-17.

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

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CEN

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

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

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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 December 2001, and conflicting national standards shall be withdrawn at the latest by December 2003.

This standard is one of a series of test methods for concrete.

It is based on the International Standard ISO (DIS) 8045 – Concrete, hardened -Determination of rebound number using the rebound hammer, and reference has been made to ASTM C805 – Rebound number of hardened concrete.

The standard has been framed around the use of a Type N, spring driven steel hammer, originally designed by Schmidt.

A draft for this standard was published in 1996 for CEN enquiry as prEN 12398. It was one of a series of individually numbered test methods for fresh or hardened concrete. For convenience it has now been decided to combine these separate draft standards into three new standards with separate parts for each method, as follows:

- Testing fresh concrete (EN 12350)
- Testing hardened concrete (EN 12390)
- Testing concrete in structures (EN 12504)

This series EN 12504 includes the following parts where the brackets give the numbers under which particular test methods were published for CEN enquiry:

EN 12504 Testing concrete in structures

- Part 1: Cored specimens - Taking, examining and testing in compersion (former prEN 12504: 1996)
- Part 2: Non-destructive testing - Determination of rebound number (former prEN 12398: 1996)
- Part 3: Determination of pull-out force (former prEN 12399: 1996)
- Part 4: Determination of ultrasonic pulse velocity (former prEN 12396: 1998)

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.

1 Scope

This standard specifies a method for determining the rebound number of an area of hardened concrete using a spring-driven steel hammer.

NOTE 1: The rebound number determined by this method can be used to assess the uniformity of concrete in situ, to delineate zones or areas of poor quality or deteriorated concrete in structures.

NOTE 2: The test method is not intended as an alternative for the compressive strength determination of concrete (EN 12390-3), but with suitable correlation, it can provide an estimate of in situ strength.

2 Normative references

Not applicable.

3 Principle

A mass propelled by a spring strikes a plunger in contact with the surface and the test result is expressed in terms of the rebound distance of the mass.

4 Apparatus

4.1 Rebound hammer, consisting of a spring-loaded steel hammer which, when released, strikes a steel plunger in contact with the concrete surface. The rebound distance of the steel hammer from the steel plunger shall be measured on a linear scale attached to the frame of the instrument.

NOTE: Several types and sizes of rebound hammers are commercially available for testing various strength classes and types of concrete. Each type and size of hammer should be used only with the strength class and type of concrete for which it is intended.