

**Methods of test for dense shaped refractory products - Determination of resistance to abrasion at ambient temperature**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 16282:2008 sisaldab Euroopa standardi EN ISO 16282:2008 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 20.06.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 07.05.2008.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 16282:2008 consists of the English text of the European standard EN ISO 16282:2008.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 20.06.2008 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 07.05.2008.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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**Võtmesõnad:** abrasion r, ambient temperatures, definition, definitions, determination, erosion, materials, materials testing, mathematical calculations, measuring techniques, refractory, refractory materials, refractory products, samples, test equipment, test specimens, testing

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English Version

Methods of test for dense shaped refractory products -  
Determination of resistance to abrasion at ambient temperature  
(ISO 16282:2007)

Méthodes d'essai des produits réfractaires façonnés  
denses - Détermination de la résistance à l'abrasion à  
température ambiante (ISO 16282:2007)

Prüfverfahren für dichte geformte feuerfeste Erzeugnisse -  
Bestimmung der Beständigkeit gegen Abrieb bei  
Umgebungstemperatur (ISO 16282:2007)

This European Standard was approved by CEN on 17 April 2008.

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## Foreword

The text of ISO 16282:2007 has been prepared by Technical Committee ISO/TC 33 "Refractories" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 16282:2008 by Technical Committee CEN/TC 187 "Refractory products and materials" the secretariat of which is held by BSI.

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 2008, and conflicting national standards shall be withdrawn at the latest by November 2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 993-20:2004.

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

### Endorsement notice

The text of ISO 16282:2007 has been approved by CEN as a EN ISO 16282:2008 without any modification.

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# Methods of test for dense shaped refractory products — Determination of resistance to abrasion at ambient temperature

## 1 Scope

This International Standard specifies a method intended primarily for the determination of the abrasion resistance of shaped refractory materials at ambient temperature. It can also be used for unshaped refractory materials. It provides an indication of the suitability of the material for service in abrasive or erosive conditions.

NOTE This International Standard is based on and technically identical to EN 993-20, published by the European Committee for Standardization.

## 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.

ISO 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*

ISO 5017, *Dense shaped refractory products — Determination of bulk density, apparent porosity and true porosity<sup>1)</sup>*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### **resistance to abrasion**

resistance of refractory test pieces to the surface wear caused by the mechanical action of moving solids

### 3.2

#### **resistance to erosion**

resistance of refractory test pieces to the surface wear caused by the mechanical action of a fluid, which may or may not contain solid material

## 4 Principle

The method determines the volume of material abraded from a flat surface of a test piece placed at right angles to a nozzle through which 1 000 g of size-graded silicon carbide is blasted by compressed air at 450 kPa.

1) EN 993-1, which is referred to in the text of EN 993-20, is closely based on ISO 5017.