

Tihedate tulekindlate profiiltoodete katsemeetodid. Osa 8: Tulekindluse määramine koormuse all

Methods of testing dense shaped refractory products
- Part 8: Determination of refractoriness-under-load

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 993-8:2000 sisaldab Euroopa standardi EN 993-8:1997 ingliskeelset teksti. Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 993-8:2000 consists of the English text of the European standard EN 993-8:1997. This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: See standard esitab meetodi nende tihedate ja profiilsete isoleertoodete deformatsiooni määramiseks konstantse koormuse ja progressiivselt tõusva temperatuuri tingimustes (tulekindlus koormuse korral) diferentsiaalmeetodi abil. Teimida võib kuni maksimumtemperatuurini 1700 tC.	Scope:
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ICS 81.080

Võtmesõnad: deformatsioon, kindlaksmääramine, teimid, tihedad tulekindlad profiiltooted, tulekindlad materjalid, tulekindlad profiilmaterjalid, tulekindlad profiilsed isoleertooted, vajumine

ICS 81.080

Descriptors: Refractory products, refractoriness, testing.

English version

Methods of testing dense shaped refractory products

Part 8: Determination of refractoriness-under-load

Méthodes d'essai pour produits
réfractaires façonnés denses – Partie 8:
Détermination de l'affaissement sous
charge

Prüfverfahren für dichte geformte
feuerfeste Erzeugnisse – Teil 8:
Bestimmung des Erweichungsverhaltens
unter Druck (Druckerweichen)

This European Standard was approved by CEN on 1997-04-21.

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.

The European Standards exist 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.

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CEN

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

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Foreword

This European Standard has been prepared 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 1997, and conflicting national standards shall be withdrawn at the latest by November 1997.

It is closely based on the corresponding International Standard, ISO 1893 'Shaped refractory products - Determination of refractoriness-under-load, published by the International Organization for Standardization (ISO).

Reproducibility and repeatability data are not available at present but may be included in a subsequent edition.

EN 993 'Methods of test for dense shaped refractory products' consists of 18 Parts:

- Part 1 : Determination of bulk density, apparent porosity and true porosity
- Part 2 : Determination of true density
- Part 3 : Test methods for carbon-containing refractories
- Part 4 : Determination of permeability to gases
- Part 5 : Determination of cold crushing strength
- Part 6 : Determination of modulus of rupture at ambient temperature
- Part 7 : Determination of modulus of rupture at elevated temperatures
- Part 8 : Determination of refractoriness-under-load
- Part 9 : Determination of creep in compression
- Part 10 : Determination of permanent change in dimensions on heating
- Part 11 : Determination of resistance to thermal shock (ENV)
- Part 12 : Determination of pyrometric cone equivalent
- Part 13 : Specification for pyrometric cones
- Part 14 : Determination of thermal conductivity (hot wire, cross-array)
- Part 15 : Determination of thermal conductivity (hot wire, parallel)
- Part 16 : Determination of resistance to acids
- Part 17 : Determination of bulk density of granular material (mercury method)
- Part 18 : Determination of bulk density of granular material (water method)

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 European Standard specifies a method for determining the deformation of dense and insulating shaped refractory products subjected to a constant load under conditions of progressively rising temperature (or refractoriness under load) by a differential method, with rising temperature. The test may be carried out up to a maximum temperature of 1700 °C.

2 Normative references

This European Standard incorporates by dated or undated references, 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.

EN 993-9 : Methods of test for dense shaped refractory products -
Part 9 : Determination of creep in compression

EN 60584-1 : Thermocouples - Part 1: References tables

EN 6058-2 : Thermocouples - Part 2 : Tolerances

ISO 3599 : Vernier calipers reading to 0,1 mm and 0,05 mm.

3 Definitions

For the purposes of this European Standard, the following definition applies :

3.1 refractoriness-under-load: A particular measure of the behaviour of a refractory material subjected to the combined effects of load, rising temperature and time.

4 Principle

A cylindrical test piece is subjected to a specified constant compressive load and heated at a specified rate of temperature increase until a prescribed deformation or subsidence occurs. The deformation of the test piece is recorded as the temperature increase, and the temperatures corresponding to specified proportional degrees of deformation are determined.