

Unshaped refractory products - Part 3: Characterization as received

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1402-3:2004 sisaldab Euroopa standardi EN 1402-3:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 28.01.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1402-3:2004 consists of the English text of the European standard EN 1402-3:2003.</p> <p>This document is endorsed on 28.01.2004 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:</p> <p>This part of this European Standard specifies the methods for the characterization of unshaped refractory materials as received and for checking the homogeneity of a delivery of a product. It is applicable to castables (dense and insulating), gunning materials and ramming materials, as defined in prEN 1402-1</p>	<p>Scope:</p> <p>This part of this European Standard specifies the methods for the characterization of unshaped refractory materials as received and for checking the homogeneity of a delivery of a product. It is applicable to castables (dense and insulating), gunning materials and ramming materials, as defined in prEN 1402-1</p>
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ICS 81.080

Võtmesõnad:

English version

Unshaped refractory products - Part 3: Characterization as received

Produits réfractaires non façonnés - Partie 3:
Caractérisation à l'état de réception

Ungeformte feuerfeste Erzeugnisse - Teil 3: Prüfung im
Anlieferungszustand

This European Standard was approved by CEN on 20 June 2003.

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 Management Centre 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 1402-3:2003) 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 April 2004 and conflicting national standards shall be withdrawn at the latest by April 2004.

This document supersedes ENV 1402-3:1998.

EN 1402 "Unshaped refractory products" consists of eight parts:

- *Part 1: Introduction and classification*
- *Part 2: Sampling for testing*
- *Part 3: Characterization as received*
- *Part 4: Consistency testing*
- *Part 5: Preparation and treatment of test pieces*
- *Part 6: Measurement of physical properties*
- *Part 7: Tests on pre-formed shapes*
- *Part 8: Determination of complementary properties*

Annex A is informative.

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 specifies the methods for the characterization of unshaped refractory materials as received and for checking the homogeneity of a delivery of a product. It is applicable to castables (dense and insulating), gunning materials and ramming materials, as defined in EN 1402-1.

NOTE A check list of appropriate tests is given in annex A.

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 955-2, *Chemical analysis of refractory products - Part 2 Products containing silica and/or alumina (wet method)*.

prEN 955-3, *Chemical analysis of refractory products - Part 3: Chrome-bearing materials (wet methods)*.

ENV 955-4, *Chemical analysis of refractory products - Part 4: Products containing silica and/or alumina* [Analysis by Flame Atomic Absorption Spectrometry (FAAS) and Inductively Coupled Plasma Atomic Emission Spectrography (ICP)].

EN 993-3, *Methods of test for dense shaped refractory products - Part 3 Tests methods for carbon-containing refractories*.

EN 1402-1, *Unshaped refractory products - Part 1: Introduction and classification*.

EN 1402-2, *Unshaped refractory products - Part 2: Sampling for testing*.

EN ISO 10058, *Magnesites and dolomites - Chemical analysis (ISO 10058:1992)*.

EN ISO 12677, *Chemical analysis of refractory products by XRF - Fused cast bead method (ISO 12677:2003)*.

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

3 Principle

Unshaped refractory products are characterized by making the following determinations:

- a) chemical composition;
- b) grain size distribution by means of sieve analysis;
- c) moisture content of ramming materials;
- d) workability index of wet ramming materials.

It is not necessary to carry out all of these determinations to characterize a material.