

Unshaped refractory products - Part 6: Measurement of physical properties

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1402-6:2004 sisaldab Euroopa standardi EN 1402-6:2003 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 1402-6:2004 consists of the English text of the European standard EN 1402-6:2003.</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: This part of this European Standard specifies methods for the determination of properties of unshaped materials from test pieces prepared and stored according to EN 1402-5.</p>	<p>Scope: This part of this European Standard specifies methods for the determination of properties of unshaped materials from test pieces prepared and stored according to EN 1402-5.</p>
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Võtmesõnad:

English version

Unshaped refractory products - Part 6: Measurement of physical properties

Produits réfractaires non-façonnés - Partie 6:
Détermination des propriétés physiques

Ungeformte feuerfeste Erzeugnisse - Teil 6: Bestimmung
der physikalischen Eigenschaften

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

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Foreword

This document (EN 1402-6:2003) 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of an identical text or by endorsement, at the latest by April 2004, and conflicting national standards shall be withdrawn at the latest by April 2004.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 1402-6:1998.

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: Determination of consistency of castables*
- *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*

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 methods for the determination of properties of unshaped materials from test pieces prepared and stored according to EN 1402-5.

The methods are applicable to dense and insulating castables and to ramming materials (including plastics) as defined in EN 1402-1 before and after firing.

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 993-1, *Methods of test for dense shaped refractory products - Part 1: Determination of bulk density, apparent porosity and true porosity.*

EN 993-2, *Methods of test for dense shaped refractory products - Part 2: Determination of true density.*

EN 993-5, *Methods of test for dense shaped refractory products - Part 5: Determination of cold crushing strength.*

EN 993-6, *Methods of test for dense shaped refractory products - Part 6: Determination of modulus of rupture at ambient temperature.*

EN 993-7, *Methods of test for dense shaped refractory products - Part 7: Determination of modulus of rupture at elevated temperatures.*

EN 993-8, *Methods of test for dense shaped refractory products - Part 8: Determination of refractoriness-under-load.*

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

EN 1094-5, *Insulating refractory products - Part 5: Determination of cold crushing strength.*

EN 1402-5, *Unshaped refractory products - Part 5: Preparation and treatment of test pieces.*

3 Determination of geometric bulk density

3.1 Principle

This determination is carried out according to a geometric method. It can be applied to green, dried or fired test pieces. The condition of the test pieces shall be stated in the test report.

3.2 Test pieces

The test piece shape shall be one of the following:

- shape A: Length: 230 mm; width: 114 mm; thickness: 64 mm, or
- shape B: Length: 230 mm; width: 64 mm; thickness: 54 mm, or
- shape C: Length: 230 mm; width: 64 mm; thickness: 64 mm