



National Standards Authority of Ireland

IRISH STANDARD

ENV 1402-3:1999

ICS 81.080

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**UNSHAPED REFRACTORY PRODUCTS -  
PART 3: CHARACTERIZATION AS  
RECEIVED**

*This Irish Standard was  
published under the  
authority of the National  
Standards Authority of  
Ireland  
and comes into effect on:  
April 8, 1999*

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Descriptors: refractory materials, unshaped refractories, acceptance, specifications, characteristics, delivery, inspection, homogeneity

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 Prestandard (ENV) was approved by CEN on 28 September 1998 as a prospective standard for provisional application.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## **Foreword**

This European Prestandard has been prepared by Technical Committee CEN/TC 187 "Refractory products and materials", the secretariat of which is held by BSI.

ENV 1402 'Unshaped refractory products' consists of seven Parts:

- Part 1 : Introduction and definitions
- 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 : Pre-formed shapes

CEN/TC187 approved this European Prestandard by resolution No 4 during its sixth meeting held in Paris, 93-10-06.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this European Prestandard: 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 Part of ENV 1402 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 mouldables, as defined in ENV 1402-1.

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

## 2 Normative references

This European Prestandard 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 Prestandard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

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)]
prEN 955-5	Chemical analysis of refractory materials - Part 5 : XRF fused cast bead method
EN 993-3	Methods of test for dense shaped refractory products - Part 3 : Test methods for carbon-containing refractories
ENV 1402-1	Unshaped refractory products - Part 1: Introduction and definitions
ENV 1402-2	Unshaped refractory products - Part 2 : Sampling for testing
EN ISO 10058	Magnesites and dolomites - Chemical analysis (ISO 10058:1992)
ISO 565	Test sieves - Metal wire cloth, perforated metal plate and electroformed sheet - Nominal sizes of openings

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