

Methods of test for dense shaped refractory products —

Part 5: Determination of cold crushing strength

The European Standard EN 993-5:1998 has the status of a
British Standard

ICS 81.080

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National foreword

This British Standard is the official English language version of EN 993-5:1998. It supersedes BS 1902-4.3:1985 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee RPI/1, Refractory products and materials, to Subcommittee RPI/1/1, Sampling and physical testing of refractory materials, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

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The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 10, an inside back cover and a back cover.

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English version

Methods of test for dense shaped refractory products – Part 5: Determination of cold crushing strength

Méthodes d'essai pour produits réfractaires façonnés
denses – Partie 5: Détermination de la résistance à
l'écrasement à température ambiante

Prüfverfahren für dichte geformte feuerfeste Erzeugnisse –
Teil 5: Bestimmung der Kaltdruckfestigkeit

This European Standard was approved by CEN on 4 September 1998.

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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of an identical text or by endorsement, at the latest by March 1999, and conflicting national standards shall be withdrawn at the latest by March 1999.

It is closely based on the corresponding International Standard ISO 10059-1:1992, *Dense, shaped refractory products — Determination of cold compressive strength — Part 1: Referee test without packing*.

Reproducibility and repeatability data are not available, but can be given in a subsequent edition.

EN 993, *Methods of testing dense shaped refractory products*, consists of the following 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 temperatures;*
- *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 (refractoriness);*
- *Part 13: Specification for pyrometric reference cones for laboratory use;*
- *Part 14: Determination of thermal conductivity by the hot-wire (cross-array) method;*
- *Part 15: Determination of thermal conductivity by the hot-wire (parallel) method;*
- *Part 16: Determination of resistance to sulphuric acids;*
- *Part 17: Determination of bulk density of granular materials by the mercury method with vacuum;*
- *Part 18: Determination of bulk density of granular materials by the water method with vacuum;*
- *Part 19: Determination of resistance to thermal expansion;*
- *Part 20: Determination of resistance to abrasion at ambient temperature.*