



NSAI
Standards

Irish Standard
I.S. EN ISO 1927-6:2012

Monolithic (unshaped) refractory products - Part 6: Measurement of physical properties (ISO 1927-6:2012)

I.S. EN ISO 1927-6:2012

Incorporating amendments/corrigenda/National Annexes issued since publication:

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SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:
EN 1402-6:2003

This document is based on:
EN ISO 1927-6:2012

Published:
29 January, 2013

This document was published under the authority of the NSAI and comes into effect on:
29 January, 2013

ICS number:

81.080

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English Version

Monolithic (unshaped) refractory products - Part 6:
Measurement of physical properties (ISO 1927-6:2012)

Produits réfractaires monolithiques (non façonnés) - Partie
6: Détermination des propriétés physiques (ISO 1927-
6:2012)

Ungeformte (monolithische) feuerfeste Erzeugnisse - Teil 6:
Bestimmung der physikalischen Eigenschaften (ISO 1927-
6:2012)

This European Standard was approved by CEN on 30 November 2012.

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Contents

Page

Foreword.....3

Foreword

This document (EN ISO 1927-6:2012) has been prepared by Technical Committee ISO/TC 33 "Refractories" in collaboration with 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of an identical text or by endorsement, at the latest by June 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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I.S. EN ISO 1927-6:2012
**INTERNATIONAL
STANDARD**

**ISO
1927-6**

First edition
2012-12-01

**Monolithic (unshaped) refractory
products —**

Part 6:
Measurement of physical properties

*Produits réfractaires monolithiques (non façonnés) —
Partie 6: Détermination des propriétés physiques*



Reference number
ISO 1927-6:2012(E)

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Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Determination of geometric bulk density	1
3.1 Principle	1
3.2 Test pieces	2
3.3 Apparatus	2
3.4 Procedure	2
3.5 Calculation and expression of test results	3
4 Determination of density and porosity	3
4.1 Principle	3
4.2 Test pieces	3
4.3 Procedure	3
4.4 Calculation	3
5 Determination of cold modulus of rupture	3
5.1 Principle	3
5.2 Test pieces	4
5.3 Apparatus and procedure	4
5.4 Test results	4
6 Determination of cold crushing strength	4
6.1 Principle	4
6.2 Test pieces	4
6.3 Apparatus	5
6.4 Procedure	5
6.5 Calculation and expression of results	7
7 Determination of permanent linear change	7
7.1 Principle	7
7.2 Apparatus	8
7.3 Procedure	8
7.4 Calculation	8
8 Determination of modulus of rupture at elevated temperatures	9
8.1 Principle	9
8.2 Apparatus and procedure	9
8.3 Calculation and expression of results	9
9 Determination of refractoriness under load and creep in compression	9
9.1 Principle	9
9.2 Test pieces	9
9.3 Procedure	9
9.4 Calculation and expression of test results	10
10 Test report	10
Bibliography	11

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 1927-6 was prepared by Technical Committee ISO/TC 33, *Refractories*.

ISO 1927 consists of the following parts, under the general title *Monolithic (unshaped) refractory products*:

- *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*

Monolithic (unshaped) refractory products —

Part 6: Measurement of physical properties

1 Scope

This part of ISO 1927 specifies methods for the determination of properties of unshaped materials from test pieces prepared and stored according to ISO 1927-5.

The methods are applicable to dense and insulating castables and to ramming materials (including plastics) as defined in ISO 1927-1 before and after firing.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1893, *Refractory products — Determination of refractoriness under load — Differential method with rising temperature*

ISO 1927-5, *Monolithic (unshaped) refractory products — Part 5: Preparation and treatment of test pieces*

ISO 3187 *Refractory products — Determination of creep in compression*

ISO 5013 *Refractory products — Determination of modulus of rupture at elevated temperatures*

ISO 5014: *Dense and insulating shaped refractory products — Determination of modulus of rupture at ambient temperature*

ISO 5017, *Dense shaped refractory products — Determination of bulk density, apparent porosity and true porosity*

ISO 5018, *Refractory materials — Determination of true density*

ISO 8895, *Shaped insulating refractory products — Determination of cold crushing strength*

ISO 10059-1, *Dense, shaped refractory products — Determination of cold compressive strength — Part 1: Referee test without packing*

ISO 10059-2, *Dense, shaped refractory products — Determination of cold compressive strength — Part 2: Test with packing*

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.

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