



# SLOVENSKI STANDARD

## SIST EN ISO 1927-1:2012

01-oktober-2012

Nadomešča:  
SIST EN 1402-1:2004

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**Neoblikovani (monolitni) ognjevdzdržni izdelki - 1. del: Uvod in klasifikacija (ISO 1927-1:2012)**

Unshaped (monolithic) refractory products - Part 1: Introduction and classification (ISO 1927-1:2012)

Ungeformte (monolithische) feuerfeste Erzeugnisse - Teil 1: Einführung und Klassifizierung (ISO 1927-1:2012)

Produits réfractaires non façonnés (monolithiques) - Partie 1: Introduction et classification (ISO 1927-1:2012)

**Ta slovenski standard je istoveten z: EN ISO 1927-1:2012**

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**ICS:**

81.080

Ognjevdzdržni materiali

Refractories

**SIST EN ISO 1927-1:2012**

**en,fr**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 1927-1**

August 2012

ICS 81.080

Supersedes EN 1402-1:2003

English Version

**Monolithic (unshaped) refractory products - Part 1: Introduction  
and classification (ISO 1927-1:2012)**

Produits réfractaires (non façonnés) monolithiques - Partie  
1: Introduction et classification (ISO 1927-1:2012)

Ungeformte (monolithische) feuerfeste Erzeugnisse - Teil 1:  
Einführung und Klassifizierung (ISO 1927-1:2012)

This European Standard was approved by CEN on 31 July 2012.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Contents

Page

Foreword.....	3
---------------	---

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[SIST EN ISO 1927-1:2012](https://standards.iteh.ai/catalog/standards/sist/0a17de8a-5271-44ce-8e9a-4d0f76e7366a/sist-en-iso-1927-1-2012)

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## Foreword

This document (EN ISO 1927-1:2012) 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of an identical text or by endorsement, at the latest by February 2013, and conflicting national standards shall be withdrawn at the latest by February 2013.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.

This document supersedes EN 1402-1:2003.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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# INTERNATIONAL STANDARD

**ISO**  
**1927-1**

First edition  
2012-08-01

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## Monolithic (unshaped) refractory products —

### Part 1: Introduction and classification

*Produits réfractaires (non façonnés) monolithiques —*

*Partie 1: Introduction et classification*

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Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
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# Contents

Page

Foreword .....	iv
Introduction .....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Product types and methods of placement .....	2
4.1 Refractory castables .....	2
4.2 Refractory gunning materials .....	3
4.3 Refractory ramming materials .....	3
4.4 Refractory jointing materials .....	3
4.5 Other monolithic (unshaped) refractory products .....	3
5 Type of chemical composition .....	4
5.1 Alumina-silica products .....	4
5.2 Basic products .....	4
5.3 Special products .....	4
5.4 Carbon-containing products .....	4
6 Classification .....	4
6.1 General .....	4
6.2 Main raw material .....	4
6.3 Classification temperature .....	5
7 Designation of a monolithic (unshaped) refractory material .....	6
Bibliography .....	9

[SIST EN ISO 1927-1:2012](https://standards.iteh.ai/catalog/standards/sist/0a17de8a-5271-44ce-8e9a-4d0f76e7366a/sist-en-iso-1927-1-2012)

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## 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.

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

ISO 1927-1 was prepared by Technical Committee ISO/TC 33, *Refractories*.

ISO 1927-1 cancels and replaces ISO 1927:1984, which has been technically revised.

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*

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## Introduction

The general objective of this part of ISO 1927 is to define, with as much accuracy as possible, the control of monolithic (unshaped) refractory products with special reference to the following:

- a) quality control;
- b) checking the conformity of the delivery as compared with claimed properties;
- c) the control of batch homogeneity;
- d) the final control of linings.

Properties are unavoidably influenced by industrial placing as a result of the equipment, environmental conditions and often by specific site conditions (target date, location). Quality control and final control of lining should not be considered in the same documents, since the former requires accuracy and clean operative methods while the latter requires the control of the placing.

Monolithic (unshaped) refractory products used in industrial linings are generally not fired, so that the high temperatures which result from use create firing which results from use creates complicated conditions that make control difficult. The main points to be mentioned are:

- 1) the temperature gradient, the consequence of which is a property gradient;
- 2) the level of maximum temperature reached on the hot face directly depends on the working temperature of the equipment;
- 3) the life of the equipment may be numbered in hours or in years.

NOTE Properties measured in the laboratory frequently do not reflect the properties of the material when installed.

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