

**SLOVENSKI STANDARD**  
**SIST EN ISO 21587-1:2008**  
**01-marec-2008**

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**SIST EN 955-2:1998**  
**SIST ENV 955-4:1998**

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Chemical analysis of aluminosilicate refractory products (alternative to the X-ray fluorescence method) - Part 1: Apparatus, reagents, dissolution and gravimetric silica (ISO 21587-1:2007)

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Chemische Analyse feuerfester Erzeugnisse aus Alumosilicat (Alternative zur Röntgenfluoreszenzanalyse) - Teil 1: Geräte, Reagenzien, Aufschluss und gravimetrische Bestimmung von Silicium(IV)-oxid (ISO 21587-1:2007)

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Analyse chimique des produits réfractaires d'aluminosilicates (méthode alternative a la méthode par fluorescence de rayons X) - Partie 1: Appareillage, réactifs, dissolution et teneur en silice par gravimétrie (ISO 21587-1:2007)

**Ta slovenski standard je istoveten z: EN ISO 21587-1:2007**

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English Version

Chemical analysis of aluminosilicate refractory products  
(alternative to the X-ray fluorescence method) - Part 1:  
Apparatus, reagents, dissolution and gravimetric silica (ISO  
21587-1:2007)

Analyse chimique des produits réfractaires  
d'aluminosilicates (méthode alternative à la méthode par  
fluorescence de rayons X) - Partie 1: Appareillage, réactifs,  
dissolution et teneur en silice par gravimétrie (ISO 21587-  
1:2007)

Chemische Analyse feuerfester Erzeugnisse aus  
Alumosilicat (Alternative zur Röntgenfluoreszenzanalyse) -  
Teil 1: Geräte, Reagenzien, Aufschluss und gravimetrische  
Bestimmung von Silicium(IV)-oxid (ISO 21587-1:2007)

This European Standard was approved by CEN on 13 September 2007.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

## Foreword

The text of ISO 21587-1:2007 has been prepared by Technical Committee ISO/TC 33 "Refractories" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 21587-1:2007 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 2008, and conflicting national standards shall be withdrawn at the latest by March 2008.

This document supersedes EN 955-2:1995 and ENV 955-4:1997.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Endorsement notice

The text of ISO 21587-1:2007 has been approved by CEN as EN ISO 21587-1:2007 without any modifications.

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**Chemical analysis of aluminosilicate  
refractory products (alternative to the  
X-ray fluorescence method) —**

Part 1:

**Apparatus, reagents, dissolution and  
gravimetric silica**

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*Analyse chimique des produits réfractaires d'aluminosilicates (méthode  
alternative à la méthode par fluorescence de rayons X) —*

*Partie 1: Appareillage, réactifs, dissolution et teneur en silice par  
gravimétrie*

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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 21587-1 was prepared by Technical Committee ISO/TC 33, *Refractories*.

ISO 21587 consists of the following parts under the general title *Chemical analysis of aluminosilicate refractory products (alternative to the X-ray fluorescence method)*:

— Part 1: *Apparatus, reagents, dissolution and gravimetric silica*

— Part 2: *Wet chemical analysis*

— Part 3: *Inductively coupled plasma and atomic absorption spectrometry methods*

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# Chemical analysis of aluminosilicate refractory products (alternative to the X-ray fluorescence method) —

## Part 1: Apparatus, reagents, dissolution and gravimetric silica

### 1 Scope

This part of ISO 21587 specifies reagents, dissolution and gravimetric silica analysis for the chemical analysis of aluminosilicate refractory products and raw materials.

This part of ISO 21587 gives alternatives to the X-ray fluorescence (XRF) method given in ISO 12677:2003, *Chemical analysis of refractory products by XRF — Fused cast bead method*.

This part of ISO 21587 should be used in conjunction with ISO 21587-2 and ISO 21587-3, which give the analytical procedures for the determination of the following:

- silicon(IV) oxide ( $\text{SiO}_2$ )
- aluminium oxide ( $\text{Al}_2\text{O}_3$ )
- iron(III) oxide (total iron oxide calculated as  $\text{Fe}_2\text{O}_3$ )
- titanium(IV) oxide ( $\text{TiO}_2$ )
- manganese(II) oxide ( $\text{MnO}$ )
- calcium oxide ( $\text{CaO}$ )
- magnesium oxide ( $\text{MgO}$ )
- sodium oxide ( $\text{Na}_2\text{O}$ )
- potassium oxide ( $\text{K}_2\text{O}$ )
- chromium(III) oxide ( $\text{Cr}_2\text{O}_3$ )
- zirconium oxide ( $\text{ZrO}_2$ )
- phosphorous(V) oxide ( $\text{P}_2\text{O}_5$ )