

**SLOVENSKI STANDARD  
SIST EN ISO 20565-3:2009****01-april-2009**

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Chemical analysis of chrome-bearing refractory products and chrome-bearing raw materials (alternative to the X-ray fluorescence method) - Part 3: Flame atomic absorption spectrometry (FAAS) and inductively coupled plasma emission spectrometry (ICP-AES) (ISO 20565-3:2008)

**STANDARD PREVIEW**

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Chemische Analyse von chromhaltigen feuerfesten Erzeugnissen und chromhaltigen Rohstoffen (Alternative zum Röntgenfluoreszenzverfahren) - Teil 3:  
Flammenatomabsorptionsspektrometrie (FAAS) und Atomemissionsspektrometrie mit induktiv gekoppeltem Plasma (ICP-AES) (ISO 20565-3:2008)

Analyse chimique des produits réfractaires contenant du chrome et des matériaux bruts contenant du chrome (méthode alternative à la méthode par fluorescence de rayons X) - Partie 3: Spectrométrie d'absorption atomique dans la flamme (FAAS) et spectrométrie d'émission atomique à plasma couplé par induction (ICP-AES) (ISO 20565-3:2008)

**Ta slovenski standard je istoveten z:** **EN ISO 20565-3:2008**

**ICS:**

71.040.40	Kemijska analiza	Chemical analysis
81.080	Ognjevzdržni materiali	Refractories

**SIST EN ISO 20565-3:2009**

en

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**EUROPEAN STANDARD**  
**NORME EUROPÉENNE**  
**EUROPÄISCHE NORM**

**EN ISO 20565-3**

December 2008

ICS 81.080

English Version

**Chemical analysis of chrome-bearing refractory products and  
 chrome-bearing raw materials (alternative to the X-ray  
 fluorescence method) - Part 3: Flame atomic absorption  
 spectrometry (FAAS) and inductively coupled plasma atomic  
 emission spectrometry (ICP-AES) (ISO 20565-3:2008)**

Analyse chimique des produits réfractaires contenant du chrome et des matières premières contenant du chrome (méthode alternative à la méthode par fluorescence de rayons X) - Partie 3: Méthodes par spectrométrie d'absorption atomique dans la flamme (FAAS) et spectrométrie d'émission atomique avec plasma induit par haute fréquence (ICP-AES) (ISO 20565-3:2008)

Chemische Analyse von chromhaltigen feuerfesten Erzeugnissen und chromhaltigen Rohstoffen (Alternative zum Röntgenfluoreszenzverfahren) - Teil 3: Flammenatomabsorptionsspektrometrie (FAAS) und Atomemissionsspektrometrie mit induktiv gekoppeltem Plasma (ICP-AES) (ISO 20565-3:2008)

**iTeh STANDARD PREVIEW**

This European Standard was approved by CEN on 8 November 2008.

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 EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN ISO 20565-3:2008) 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 2009, and conflicting national standards shall be withdrawn at the latest by June 2009.

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Endorsement notice

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INTERNATIONAL  
STANDARD

ISO  
20565-3

First edition  
2008-12-01

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**Chemical analysis of chrome-bearing  
refractory products and chrome-bearing  
raw materials (alternative to the X-ray  
fluorescence method) —**

Part 3:  
**Flame atomic absorption spectrometry  
(FAAS) and inductively coupled plasma  
(atomic emission) spectrometry (ICP-AES)**

*Analyse chimique des produits réfractaires contenant du chrome et des matières premières contenant du chrome (méthode alternative à la méthode par fluorescence de rayons X) —*  
<https://standards.iteh.ae/standards/20565-3>

*Partie 3: Méthodes par spectrométrie d'absorption atomique dans la flamme (FAAS) et spectrométrie d'émission atomique avec plasma induit par haute fréquence (ICP-AES)*



Reference number  
ISO 20565-3:2008(E)

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Published in Switzerland

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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 20565-3 was prepared by Technical Committee ISO/TC 33, *Refractories*, in collaboration with Technical Committee CEN/TC 187, *Refractory products and materials*.

## iTeh STANDARD PREVIEW

ISO 20565 consists of the following parts, under the general title *Chemical analysis of chrome-bearing refractory products and chrome-bearing raw materials (alternative to the X-ray fluorescence method)*:

- *Part 1: Apparatus, reagents, dissolution and determination of gravimetric silica*  
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- *Part 2: Wet chemical analysis*  
9452e605b364/sist-en-iso-20565-3-2009
- *Part 3: Flame atomic absorption spectrometry (FAAS) and inductively coupled plasma atomic emission spectrometry (ICP-AES)*

# Chemical analysis of chrome-bearing refractory products and chrome-bearing raw materials (alternative to the X-ray fluorescence method) —

## Part 3: Flame atomic absorption spectrometry (FAAS) and inductively coupled plasma atomic emission spectrometry (ICP-AES)

### 1 Scope

This part of ISO 20565 specifies flame atomic absorption spectrometry (FAAS) and inductively coupled plasma atomic emission spectrometry (ICP-AES) methods for the chemical analysis of chrome-bearing refractory products and chrome-bearing raw materials.

It is applicable in the ranges of determination given in Table 1.

ISO 20565 gives alternatives to the X-ray fluorescence (XRF) method given in ISO 12677.

**Table 1 SIST EN ISO 20565-3:2008  
Range of determination (% by mass)**

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Component	Range
SiO <sub>2</sub>	0,5 to 10
Al <sub>2</sub> O <sub>3</sub>	2 to 30
Fe <sub>2</sub> O <sub>3</sub>	0,5 to 25
TiO <sub>2</sub>	0,01 to 1
MnO	0,01 to 1
CaO	0,01 to 3
MgO	15 to 85
Na <sub>2</sub> O	0,01 to 1
K <sub>2</sub> O	0,01 to 1
Cr <sub>2</sub> O <sub>3</sub>	2 to 60
ZrO <sub>2</sub>	0,01 to 0,5
P <sub>2</sub> O <sub>5</sub>	0,01 to 5
LOI	-0,5 to 5
NOTE These values are after the loss on ignition (LOI) has been taken into account.	