SLOVENSKI STANDARD
SIST EN ISO 20565-3:2009

01-april-2009

Kemijska analiza kromovih ognjevzdržnih izdelkov in kromovih surovin (alternativa rentgenski fluorescenčni metodi) - 3. del: Plamenska atomska absorpcijska spektrometrija (FAAS) in emisijska spektrometrija z induktivno sklopljeno plazmo (ICP-AES) (ISO 20565-3:2008)

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)

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 a la méthode par fluorescence de rayons X) - Partie 3: Spectrométrie d'absorption atomique dans la flamme (FAAS) et spectrométrie d'émission atomique a 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

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)

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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

The text of ISO 20565-3:2008 has been approved by CEN as a EN ISO 20565-3:2008 without any modification.

INTERNATIONAL STANDARD

ISO 20565-3

First edition
2008-12-01

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) —

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.

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

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*

— *Part 2: Wet chemical analysis*

— *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 — Range of determination (% by mass)

Component	Range
SiO_2	0,5 to 10
Al_2O_3	2 to 30
Fe_2O_3	0,5 to 25
TiO_2	0,01 to 1
MnO	0,01 to 1
CaO	0,01 to 3
MgO	15 to 85
Na_2O	0,01 to 1
K_2O	0,01 to 1
Cr_2O_3	2 to 60
ZrO_2	0,01 to 0,5
P_2O_5	0,01 to 5
LOI	–0,5 to 5
NOTE These values are after the loss on ignition (LOI) has been taken into account.	