

This document is a preview generated by EVS

Chemical analysis of magnesite and dolomite refractory products (alternative to the X-ray fluorescence method) - Part 3: Flame atomic absorption spectrophotometry (FAAS) and inductively coupled plasma atomic emission spectrometry (ICP-AES)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 10058-3:2009 sisaldab Euroopa standardi EN ISO 10058-3:2008 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 10058-3:2009 consists of the English text of the European standard EN ISO 10058-3:2008.
Standard on kinnitatud Eesti Standardikeskuse 29.01.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 29.01.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kätesaadavaks tegemise kuupäev on 01.12.2008.	Date of Availability of the European standard text 01.12.2008.
Standard on kätesaadav Eesti standardiorganisatsionist.	The standard is available from Estonian standardisation organisation.

ICS 73.080

Võtmesõnad:

Standardite reproduutseerimis- ja levitamisõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

December 2008

ICS 73.080

Supersedes EN ISO 10058:1996

English Version

Chemical analysis of magnesite and dolomite refractory products (alternative to the X-ray fluorescence method) - Part 3:
Flame atomic absorption spectrophotometry (FAAS) and inductively coupled plasma atomic emission spectrometry (ICP-AES) (ISO 10058-3:2008)

Analyse chimique des produits de magnésie et de dolomie (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 10058-3:2008)

Chemische Analyse von feuerfesten Erzeugnissen aus Magnesit und Dolomit (Alternative zur Röntgenfluoreszenzanalyse) - Teil 3: Flammenatomabsorptionsspektroskopie (FAAS) und Atomemissionsspektrometrie mit induktiv gekoppeltem Plasma (ICP-AES) (ISO 10058-3:2008)

This European Standard was approved by CEN on 1 November 2008.

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.

CEN members are the national standards bodies of 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.



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

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

Foreword

This document (EN ISO 10058-3:2008) 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.

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 ISO 10058:1996.

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 the United Kingdom.

Endorsement notice

The text of ISO 10058-3:2008 has been approved by CEN as a EN ISO 10058-3:2008 without any modification.

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Instrumental methods using ICP-AES.....	2
3.1 Determination of residual silica in stock solutions (S1) by ICP-AES	2
3.2 Determination of silicon(IV) oxide, aluminium oxide, iron(III) oxide, titanium(IV) oxide, manganese(II) oxide, calcium oxide, chromium(III) oxide and zirconium oxide using stock solutions (S1) or (S'1) by ICP-AES.....	3
3.3 Determination of sodium oxide and potassium oxide using stock solutions (S4) by ICP-AES	6
3.4 Determination of phosphorus(V) oxide by ICP-AES	7
4 Instrumental methods using FAAS	9
4.1 Determination of manganese(II) oxide, calcium oxide and chromium(III) oxide by FAAS	9
4.2 Determination of calcium oxide, sodium oxide and potassium oxide using stock solutions (S3) by FAAS	11
5 Test report.....	13

Chemical analysis of magnesite and dolomite refractory products (alternative to the X-ray fluorescence method) —

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

1 Scope

This part of ISO 10058 specifies atomic absorption spectrometry (AAS) and inductively coupled plasma atomic emission spectrometry (ICP-AES) methods for the chemical analysis of magnesite and dolomite refractory products and raw materials.

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

Table 1 — Range of determination (percentage by mass)

Component	Range	Component	Range
SiO ₂	0,1 to 10	Na ₂ O	0,01 to 1
Al ₂ O ₃	0,05 to 10	K ₂ O	0,01 to 1
Fe ₂ O ₃	0,01 to 10	Cr ₂ O ₃	0,01 to 3
TiO ₂	0,01 to 1	ZrO ₂	0,01 to 1
MnO	0,01 to 1	P ₂ O ₅	0,01 to 5
CaO	0,01 to 10	—	—
LOI	0,01 to 60	—	—

NOTE These values are after the loss on ignition (LOI) has been taken into account.

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 10058-1:2008, *Chemical analysis of magnesite and dolomite refractory products (alternative to the X-ray fluorescence method) — Part 1: Apparatus, reagents, dissolution and gravimetric silica*

ISO 26845, *Chemical analysis of refractories — General requirements for wet chemical analysis, atomic absorption spectrometry (AAS) and inductively coupled plasma atomic emission spectrometry (ICP-AES) methods*