
Kemijske analize ognjevzdržnih materialov, stekla in glazur - Določevanje Fe²⁺ in Fe³⁺ s spektrofotometrijsko metodo z 1,10-fenantrolinom (ISO 14719:2011)

Chemical analysis of refractory material glass and glazes - Determination of Fe²⁺ and Fe³⁺ by the spectral photometric method with 1,10-phenanthroline (ISO 14719:2011)

Chemische Analyse von feuerfestem Werkstoff, Glas und Glasuren - Spektralphotometrische Bestimmung von Eisen(II) und Eisen(III) mit 1,10-Phenanthrolin (ISO 14719:2011)

(standards.iteh.ai)

Analyse chimique de matériaux réfractaires, du verre et d'émaux - Dosage de Fe²⁺ et Fe³⁺ par la méthode spectrophotométrique en utilisant la 1,10-phénanthroline (ISO 14719:2011)

Ta slovenski standard je istoveten z: EN ISO 14719:2011

ICS:

71.040.40	Kemijska analiza	Chemical analysis
81.040.01	Steklo na splošno	Glass in general
81.080	Ognjevzdržni materiali	Refractories

SIST EN ISO 14719:2012**en,fr**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 14719:2012

<https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012>

EUROPEAN STANDARD

EN ISO 14719

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2011

ICS 81.080; 81.060.01; 81.040.01

English Version

Chemical analysis of refractory material glass and glazes - Determination of Fe²⁺ and Fe³⁺ by the spectral photometric method with 1,10-phenanthroline (ISO 14719:2011)

Analyse chimique de matériaux réfractaires, du verre et
d'émaux - Dosage de Fe²⁺ et Fe³⁺ par la méthode
spectrophotométrique en utilisant la 1,10-phénanthroline
(ISO 14719:2011)

Chemische Analyse von feuerfestem Werkstoff, Glas und
Glasuren - Spektralphotometrische Bestimmung von
Eisen(II) und Eisen(III) mit 1,10-Phenanthrolin (ISO
14719:2011)

This European Standard was approved by CEN on 30 November 2011.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, 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: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....3

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 14719:2012](https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012)

<https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012>

Foreword

This document (EN ISO 14719:2011) 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 2012, and conflicting national standards shall be withdrawn at the latest by June 2012.

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.

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, 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.

iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of ISO 14719:2011 has been approved by CEN as a EN ISO 14719:2011 without any modification.

[SIST EN ISO 14719:2012
https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012](https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 14719:2012

<https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012>

INTERNATIONAL
STANDARDISO
14719First edition
2011-12-01

**Chemical analysis of refractory material
glass and glazes — Determination of Fe²⁺
and Fe³⁺ by the spectral photometric
method with 1,10-phenanthroline**

*Analyse chimique de matériaux réfractaires, du verre et d'émaux —
Dosage de Fe²⁺ et Fe³⁺ par la méthode spectrophotométrique en
utilisant la 1,10-phénanthroline*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 14719:2012

<https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012>



Reference number
ISO 14719:2011(E)

© ISO 2011

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 14719:2012

<https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2011

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle of Methods A and B	2
5 Sample preparation	2
6 Interferences	2
7 Sample disintegration and measurement	2
8 Calculation and expression of results	9
9 Test report	10
Annex A (informative) Precision	11
Bibliography	13

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 14719:2012](https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012)

<https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012>

ISO 14719:2011(E)**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 14719 was prepared by Technical Committee ISO/TC 33, *Refractories*.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 14719:2012](https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012)

<https://standards.iteh.ai/catalog/standards/sist/21cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012>

Chemical analysis of refractory material glass and glazes — Determination of Fe²⁺ and Fe³⁺ by the spectral photometric method with 1,10-phenanthroline

1 Scope

This International Standard specifies a spectral photometric method with 1,10-phenanthroline for the quantitative determination of Fe²⁺ and Fe³⁺ in oxidic raw and basic materials for ceramics, glass and glazes, e.g. feldspar, kaolinites, clay, limestone, quartz refractory materials. This International Standard could be extended to other aluminosilicate materials, providing that uncertainty data is produced to support it. However, there might be problems in the decomposition of high-purity alumina and chrome ore samples.

The method is not suitable for reduced materials, such as silicon carbide, graphite-magnesia, etc.

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.

- [SIST EN ISO 14719:2012](http://www.iso.org/iso/catalogue_detail.htm?csnumber=621cc3dd3-3c48-4610-9b7e-44ae17f4cb2d/sist-en-iso-14719-2012)
- ISO 648, *Laboratory glassware — Single-volume pipettes*
- ISO 1042, *Laboratory glassware — One-mark volumetric flasks*
- ISO 3696, *Water for analytical laboratory use — Specification and test methods*
- ISO 5022, *Shaped refractory products — Sampling and acceptance testing*
- ISO 6286, *Molecular absorption spectrometry — Vocabulary — General — Apparatus*
- ISO 8656-1, *Refractory products — Sampling of raw materials and unshaped products — Part 1: Sampling scheme*
- ISO 10725, *Acceptance sampling plans and procedures for the inspection of bulk materials*
- ISO 11648-2, *Statistical aspects of sampling from bulk materials — Part 2: Sampling of particulate materials*
- ISO 12677, *Chemical analysis of refractory products by X-ray fluorescence (XRF) — Fused cast-bead method*
- 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*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 26845 apply.