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Determination of sulfur in refractory products and raw materials by gravimetric, photometric and titrimetric methods

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National foreword

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INTERNATIONAL STANDARD

ISO 22016

First edition
2015-05-15

Determination of sulfur in refractory products and raw materials by gravimetric, photometric and titrimetric methods

Dosage du soufre dans les produits réfractaires et les matériaux bruts par gravimétrie, et des méthodes photométriques et titrimétriques

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information.

The committee responsible for this document is ISO/TC 33, *Refractories*.

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INTERNATIONAL STANDARD ISO 22016:2015(E)

Determination of sulfur in refractory products and raw materials by gravimetric, photometric and titrimetric methods

1 Scope

This International Standard specifies methods for the wet chemical analysis of refractory products and their raw materials with below 5 % (mass percentage) sulfur.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 836, *Terminology for refractories*

ISO 6353-1, *Reagents for chemical analysis — Part 1: General test methods*

ISO 6353-2, *Reagents for chemical analysis — Part 2: Specifications — First series*

ISO 6353-3, *Reagents for chemical analysis — Part 3: Specifications — Second series*

ISO 8656-1, *Refractory products — Sampling of raw materials and unshaped products — Part 1: Sampling scheme*

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 836, ISO 26845, and the following apply.

3.1
sulfur
general term for elemental sulfur, sulfides, sulfates, sulfites, etc. in refractory products and their raw materials

4 Apparatus

4.1 General

The following apparatus is required in addition to ordinary laboratory apparatus and the apparatus given in ISO 26845.

4.1.1 **Platinum crucible**, with a nominal volume of 25 ml, made, for example, in Pt/Au 95/5 %.

4.1.2 **pH-meter**.

4.1.3 **Electrically heated furnace**, adjustable to (1 150 ± 25) °C.

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