
**Chemical analysis of refractory products
by XRF — Fused cast bead method**

*Analyse chimique des matériaux réfractaires par fluorescence de
rayons X — Méthode de la perle fondue*



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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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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.

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Chemical analysis of refractory products by XRF — Fused cast bead method

1 Scope

This International Standard specifies a method for chemical analysis of refractory products and materials, and technical ceramics composed of oxides, including the determination of oxide at levels between 0,01 % and 99 % by means of the XRF fused cast bead method.

NOTE Constituents at concentrations greater than 99 % (on a dried basis) should be reported on by difference, provided that all likely minor constituents and any loss on ignition have been determined. These figures should also be checked by direct determination.

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 Guide 34:2000, *General requirements for the competence of reference material producers*

ISO 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*

ISO 10058, *Magnesites and dolomites — Chemical analysis*

ISO/IEC Directives (1992) — Part 2: *Methodology for the development of International Standards — Annex B Mention of reference materials*

EN 955-2, *Chemical analysis of refractory products — Part 2: Products containing silica and/or alumina (wet method)*

3 Types of material

High alumina ≥ 45 % Al_2O_3

Alumino-silicate 7 % to 45 % Al_2O_3

Silica ≥ 93 % SiO_2

Zircon

Zirconia and zirconates

Magnesia

Magnesia/alumina spinel (~ 70/30)