
**Shaped insulating refractory products —
Determination of bulk density and true
porosity**

*Produits réfractaires isolants façonnés — Détermination de la masse
volumique apparente et de la porosité réelle*



Foreword

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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.

International Standard ISO 5016 was prepared by Technical Committee ISO/TC 33, *Refractories*.

This second edition cancels and replaces the first edition (ISO 5016:1986), which has been technically revised.

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Shaped insulating refractory products — Determination of bulk density and true porosity

1 Scope

This International Standard specifies a method for the determination of the bulk density and true porosity of shaped insulating refractory products.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5017:—¹⁾, *Dense shaped refractory products — Determination of bulk density, apparent porosity and true porosity.*

ISO 5018:1983, *Refractory materials — Determination of true density.*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 bulk density, ρ_b : Ratio of the mass of the dry material of a porous body to its bulk volume.

3.2 bulk volume, V_b : Sum of the volumes of the solid material, the open pores and the closed pores in a porous body.

NOTE — The roughness of the surface limits the accuracy of definition of the bulk volume and, in consequence, the bulk density. Also, the notion of bulk density becomes less precise when the volume of the sample diminishes below certain limits or when its texture (size of pores and grains) is too coarse.

¹⁾ To be published. (Revision of ISO 5017:1988)