
Refractory bricks — Dimensions —

Part 6:

**Basic bricks for oxygen steel-making
converters**

Briques réfractaires — Dimensions —

Partie 6: Briques basiques pour convertisseurs à oxygène



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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.

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 5019-6 was prepared by Technical Committee ISO/TC 33, *Refractories*.

This second edition cancels and replaces the first edition (ISO 5019-6:1984), of which Table 1 has been extended to include sizes from 850 mm to 1 000 mm, in 50 mm increments, and from 1 000 mm to 1 200 mm, in 100 mm increments, maintaining the existing tapers.

ISO 5019 consists of the following parts, under the general title *Refractory bricks — Dimensions*:

- *Part 1: Rectangular bricks*
- *Part 2: Arch bricks*
- *Part 3: Rectangular checker bricks for regenerative furnaces*
- *Part 4: Dome bricks for electric arc furnace roofs*
- *Part 5: Skewbacks*
- *Part 6: Basic bricks for oxygen steel-making converters*

Introduction

This International Standard is intended to provide standardized sizes of bricks from which to construct the working/hot-face lining for basic oxygen steel-making converters. It provides for 18 thicknesses of lining, ranging from a minimum of 250 mm to a maximum of 1 200 mm.

For each lining thickness, there is a rectangular brick (i.e. a brick with zero taper) and bricks with either

- four rates of taper for the five smallest thicknesses, or
- five or six rates of taper for the remaining thicknesses.

All the bricks have a constant median dimension of 150 mm. The course height is uniformly 100 mm.

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Refractory bricks — Dimensions —

Part 6:

Basic bricks for oxygen steel-making converters

1 Scope

This part of ISO 5019 specifies the dimensions of basic refractory bricks for use in oxygen steel-making converters.

The calculated volume of each size of brick is shown, for information, in Table 1, and also the internal diameter of lining for which each size is suitable, if used alone. These diameters have been calculated with no allowance for joint thickness.

2 Dimensions

The dimensions of basic bricks for use in oxygen steel-making converters shall be as shown in Table 1.

The symbols designating the dimensions in Table 1 are shown in Figure 1.

NOTE These symbols do not necessarily apply to tables and figures in other International Standards.

3 Brick designations

Each brick size has a conventional designation, as shown in the first column of Table 1. Each designation consists of two groups of digits separated by a solidus (slash).

The group of two digits before the solidus shows the brick length (or lining thickness), in centimetres. It corresponds to $A/10$.

The group after the solidus shows the difference, $C - D$, between the cold-face and hot-face dimensions in millimetres (i.e. the rate of taper). In the case of a rectangular brick, the second group is a single zero.

4 Tolerances

Tolerances on the dimensions specified in Table 1 shall be the subject of agreement between the purchaser and the supplier.