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Refractory mortars —

Part 7: Determination of permanent change in dimensions on heating

Mortiers réfractaires —

Partie 7: Détermination des variations dimensionnelles permanentes lors du chauffage

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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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This document was prepared by Technical Committee ISO/TC 33, *Refractories*.

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Refractory mortars —

Part 7:
Determination of permanent change in dimensions on heating

1 Scope

This document describes the method for determining the permanent change in dimensions on heating (drying and/or firing) of refractory mortars.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 8656-1, *Refractory products — Sampling of raw materials and unshaped products — Part 1: Sampling scheme*

ISO 13765-1, *Refractory mortars — Part 1: Determination of consistency using the penetrating cone method*

ISO 13765-2, *Refractory mortars — Part 2: Determination of consistency using the reciprocating flow table method*

ISO 13765-3, *Refractory mortars — Part 3: Determination of joint stability*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Principle

A mortar sample is heated and the dimensional change after heating is determined. Place the test specimens of refractory mortars, whose length between two marks has been determined, in a drying oven or furnace. Heat (drying and/or firing) to a specified temperature for a specified time and then cool to room temperature. Measure the length between two marks again. Calculate the permanent change in dimensions on heating.

5 Apparatus

5.1 **Mixer**, as specified in ISO 13765-1 or ISO 13765-2.

5.2 **Balance**, with a maximum weighing capacity of 10 kg and capable of weighing to the nearest 1 g.

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