INTERNATIONAL STANDARD

ISO 20182

Second edition
2008-01-15

Refractory test-piece preparation — Gunning refractory panels by the pneumatic-nozzle mixing type guns

Préparation d'éprouvettes réfractaires — Panneaux réfractaires pour gunitage au pistolet mélangeur pneumatique

Reference number
ISO 20182:2008(E)

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Published in Switzerland

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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 20182 was prepared by Technical Committee ISO/TC 33, *Refractories* in collaboration with Technical Committee CEN/TC 187, *Rerfractory products and materials.*

This second edition cancels and replaces the first edition (ISO 20182:2005), which has been technically revised as follows:

— in 6.5, two acceptable support plates are now specified;

— in Clause 8, pH determination has been added in place of water hardness testing and predamping percentages are now given for both dense and insulating castables;

— in Clause 9 test report item c), the water pH, if determined, replaces the water hardness;

— in Clause 9 test report item d), by agreement between the interested parties, the total water content and rebound are measured and recorded.

Annex A has been added, giving procedures for the determination of the total water content and rebound.

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WARNING — This International Standard may involve the use of hazardous materials, operations and equipment. It does not attempt to address the safety problems associated with its use. It is the responsibility of the user of this International Standard to establish appropriate safety and health practices, and to determine the applicability of regulatory limitations prior to use.

1 Scope

This International Standard describes the procedure for the preparation of test panels from refractory materials by gunning through pneumatic-nozzle mixing type guns at ambient temperatures.

NOTE The values obtained from test pieces cut from the panel prepared using this method might not correspond with those obtained from test pieces of the same material prepared at a gunning installation site.

This International Standard does not apply to plastic gunning mixes, and might not apply to those mixes that contain aggregates that are susceptible to hydration.

It also does not apply to shotcrete type mixes.

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 836, *Refractories — Vocabulary*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 836 and the following apply.

3.1
gun
assembly essentially comprising a chamber into which the refractory is added, together with a mechanism that controls the flow of the material through the unit

NOTE Depending on the type used, the gun may be open at the top, or a closed pressurized unit may be used.

3.2
rebound material
material that fails to adhere to the surface when being sprayed, and ricochets out of the immediate area