ICS 81.080 SLOVENSKÁ TECHNICKÁ NORMA Február 2025

STN	**Príprava skúšobných telies zo žiaruvzdorných materiálov Natorkrétované žiaruvzdorné panely zhotovené metódou pneumatického miešania v tryske (ISO 20182: 2024)**	**STN EN ISO 20182** 72 6004

Refractory test-piece preparation - Gunning refractory panels by the pneumatic-nozzle mixing type guns (ISO 20182:2024)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/25

Obsahuje: EN ISO 20182:2024, ISO 20182:2024

Oznámením tejto normy sa ruší
STN EN ISO 20182 (72 6004) z júna 2008

139819

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 20182

October 2024

ICS 81.080 Supersedes EN ISO 20182:2008

English Version

Refractory test-piece preparation - Gunning refractory panels by the pneumatic-nozzle mixing type guns (ISO 20182:2024)

Préparation d'éprouvettes réfractaires - Panneaux réfractaires pour gunitage au pistolet mélangeur pneumatique (ISO 20182:2024)

Probenvorbereitung feuerfester Erzeugnisse - Probenvorbereitung feuerfester Spritzmassen mittels pneumatischer Spritzmaschinen (ISO 20182:2024)

This European Standard was approved by CEN on 1 October 2024.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN ISO 20182:2024 E

Contents

Page

European foreword

This document (EN ISO 20182:2024) has been prepared by Technical Committee ISO/TC 33 "Refractories" in collaboration with Technical Committee CEN/TC 187 “Refractory products and materials” the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2025, and conflicting national standards shall be withdrawn at the latest by April 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 20182:2008.

Any feedback and questions on this document should be directed to the users’ national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 20182:2024 has been approved by CEN as EN ISO 20182:2024 without any modification.

International Standard

ISO 20182

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

Third edition
2024-10

Reference number
ISO 20182:2024(en)

COPYRIGHT PROTECTED DOCUMENT

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

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.

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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 33, *Refractories,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 187, *Refractory products and materials,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 20182:2008), which has been technically revised.

The main changes are as follows:

— Scope has been broadened to include preparation of gunned panels under both controlled laboratory (“standard”) conditions and “site” conditions; this broadening of scope aligns with that adopted in ISO18886;

— in 6.5, details of two acceptable support plates have been amended;

— in Clause 4, provision has been made for the use of a gunning liquid other than water and examples of liquids other than water that might typically pertain, are given;

— Clause 8 has been revised;

— in Clause 9 test report item a), details of any stainless-steel wire fibre additions are to be reported;

— A.2 has been amended, specifying that it is the as-cured mass of the panel that is to be used as the basis for rebound calculations.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

International Standard **ISO 20182:2024(en)**

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

WARNING — This document can 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 document to establish appropriate safety and health practices, and to determine the applicability of regulatory limitations prior to use.

1 Scope

This document describes the procedure for the preparation of test panels from refractory materials by gunning through pneumatic nozzle mixing type guns at ambient temperatures. The test pieces are for the determination of properties on as-gunned products prepared under either “standard conditions” (as required for quality assurance or product development) or “site conditions”. In the case of “site conditions”, the purpose of the testing is to establish the properties pertaining to a given installation or a given set of installation conditions. In this case, the panel can be obtained during the on-site installation. Parameters such as ambient temperature, gunning elevation, air pressure and curing conditions (temperature, orientation of the panel) applicable during the preparation of the panel are as near as possible to the respective parameters pertaining to the site installation.

It is also possible to simulate certain “site conditions” by gunning panels off-site, for example, in a laboratory setting. This is acceptable under this document, by agreement between interested parties.

This document does not apply to plastic gunning mixes and to those mixes that contain aggregates that are susceptible to hydration.

This document does not apply to shotcrete type mixes, which are dealt with in ISO 18886.

2 Normative references

The following documents are referred to in the text in such a way that some or all 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 836, *Terminology for refractories*