
**Refractory test-piece preparation —
Gunning refractory panels by wet
gunning techniques**

*Préparation d'éprouvettes réfractaires — Panneaux réfractaires pour
gunitage par techniques de gunitage humide*

Sample Document

get full document from standards.iteh.ai



Reference number
ISO 18886:2016(E)

© ISO 2016

Sample Document

get full document from standards.iteh.ai



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Apparatus	2
5 Sampling	2
6 Preparation of test pieces	3
6.1 Principle	3
6.2 Equipment	3
7 Procedure	3
8 Calculation	5
9 Test report	5
Bibliography	7

Sample Document

get full document from standards.iteh.ai

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 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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 33, *Refractories*.

get full document from standards.iteh.ai

Refractory test-piece preparation — Gunning refractory panels by wet gunning techniques

1 Scope

This International Standard specifies the procedures for the preparation of test pieces from refractory materials by wet gunning at ambient temperatures. The test pieces are for the determination of properties on wet-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 gunned panel is obtained during the on-site installation. Such parameters as activator addition (type, amount, method of addition), conveying pressure and curing conditions (temperature, orientation of the panel) applying during the preparation of the panel are as near as possible to the same parameters pertaining to the site installation.

This procedure applies to refractory materials that can be transported through a gunning hose after having been mixed with the total water requirement for material placement. The consistency of these materials (see 7.5) is typically such that they would be suitable for placement by casting were they not to be transported through the gunning hose and applied by spraying.

Refractory materials that are pneumatically conveyed in the “dry” state through a gunning hose, even after mixing with a portion of the total water requirement (the bulk of the water being added at the nozzle) are dealt with in ISO 20182.

This International Standard does not apply to the gunning of plastic refractory materials (refer to ISO 1927-1).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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*

ISO 1927-4, *Monolithic (unshaped) refractory products — Part 4: Determination of consistency of castables*

3 Terms and definitions

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

3.1

activator

chemical solution added to the refractory at, or prior to, the gunning nozzle which causes the refractory to set, stiffen or coagulate

Note 1 to entry: 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.