# INTERNATIONAL STANDARD

ISO 1927-6

First edition 2012-12-01

## Monolithic (unshaped) refractory products —

Part 6:

Measurement of physical properties

Produits réfractaires monolithiques (non façonnés) — Partie 6: Détermination des propriétés physiques



ISO 1927-6:2012(E)



#### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

### **Contents** Page

Fore	word	iv
1	Scope	1
2	Normative references	1
3 3.1 3.2 3.3 3.4 3.5	Determination of geometric bulk density Principle Test pieces Apparatus Procedure Calculation and expression of test results	
4 4.1 4.2 4.3 4.4	Determination of density and porosity Principle Test pieces Procedure Calculation	3 3
5 5.1 5.2 5.3 5.4	Determination of cold modulus of rupture Principle Test pieces Apparatus and procedure Test results	
6 6.1 6.2 6.3 6.4 6.5	Determination of cold crushing strength Principle Test pieces Apparatus Procedure Calculation and expression of results	
7 7.1 7.2 7.3 7.4	Determination of permanent linear change	8
8 8.1 8.2 8.3	Determination of modulus of rupture at elevated temperatures  Principle  Apparatus and procedure  Calculation and expression of results	g
9 9.1 9.2 9.3 9.4	Determination of refractoriness under load and creep in compression  Principle  Test pieces  Procedure  Calculation and expression of test results	g
10	Test report	
Dibli	a gran by	44

#### **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 1927-6 was prepared by Technical Committee ISO/TC 33, Refractories.

ISO 1927 consists of the following parts, under the general title Monolithic (unshaped) refractory products:

- Part 1: Introduction and classification
- Part 2: Sampling for testing
- Part 3: Characterization as received
- Part 4: Determination of consistency of castables
- Part 5: Preparation and treatment of test pieces
- Part 6: Measurement of physical properties
- Part 7: Tests on pre-formed shapes
- Part 8: Determination of complementary properties