

**Monolithic (unshaped) refractory products - Part 5:
Preparation and treatment of test pieces (ISO 1927-
5:2012)**

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NATIONAL FOREWORD

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 01.12.2012.	Date of Availability of the European standard is 01.12.2012.
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ICS 81.080

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English Version

Monolithic (unshaped) refractory products - Part 5: Preparation
and treatment of test pieces (ISO 1927-5:2012)

Produits réfractaires monolithiques (non façonnés) - Partie
5: Préparation et traitement des éprouvettes (ISO 1927-
5:2012)

Ungeformte (monolithische) feuerfeste Erzeugnisse - Teil 5:
Herstellung und Behandlung von Probekörpern (ISO 1927-
5:2012)

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Foreword

This document (EN ISO 1927-5:2012) 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of an identical text or by endorsement, at the latest by June 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

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Endorsement notice

The text of ISO 1927-5:2012 has been approved by CEN as a EN ISO 1927-5:2012 without any modification.

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Introduction

The values of the properties obtained using test pieces are used to assess the homogeneity of monolithic (unshaped) materials. They are reference values which do not necessarily correspond with those obtained in industrial applications. Other methods of test-piece preparation or treatment, which differ from those specified by this part of ISO 1927, can lead to different values.

Monolithic (unshaped) refractory products —

Part 5:

Preparation and treatment of test pieces

1 Scope

This part of ISO 1927 specifies methods for the preparation and treatment (curing, drying and firing) of test pieces from monolithic (unshaped) refractory materials.

The methods are applicable to dense and insulating castables and to ramming materials with the four types of chemical composition defined in ISO 1927-1.

The dimensions of the test pieces are specified and the preparation of the mixture, compaction methods, storage and post-treatment of the test pieces are described.

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 1927-1, *Monolithic (unshaped) refractory products — Part 1: Introduction and classification*

ISO 1927-2, *Monolithic (unshaped) refractory products — Part 2: Sampling for testing*

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

ISO 10060, *Dense shaped refractory products — Test methods for products containing carbon*

3 Dimensions of test pieces

Shape A: Length: 230 mm; width: 114 mm; thickness: 64 mm;

Shape B: Length: 230 mm; width: 64 mm; thickness: 54 mm;

Shape C: Length: 230 mm; width: 64 mm; thickness: 64 mm;

Shape D: Length: 160 mm; width: 40 mm; thickness: 40 mm.

The width of the test piece as tested shall correspond to the height during preparation. The vibration of the test piece during preparation shall be recorded, and for shapes C and D the compaction surface shall be marked for reference. The selection of test pieces for each type of material shall be as given in Table 1, except that for basic dense castables, ramming materials, taphole mixes and dry vibration mixes, test pieces with a diameter of 50 mm and height of 50 mm \pm 1 mm are permissible and can be prepared using the sand-rammer. Shape C shall be used as the referee shape for inter laboratory testing.