

**Monolithic (unshaped) refractory products - Part 7:  
Tests on preformed shapes (ISO 1927-7:2012)**

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## EESTI STANDARDI EESSÕNA

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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 7: Tests on pre-formed shapes (ISO 1927-7:2012)**

Produits réfractaires monolithiques (non façonnés) - Partie  
7: Essais sur pièces pré-formées (ISO 1927-7:2012)

Ungeformte (monolithische) feuerfeste Erzeugnisse - Teil 7:  
Prüfungen an Fertigteilen (ISO 1927-7:2012)

This European Standard was approved by CEN on 30 November 2012.

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

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## Foreword

This document (EN ISO 1927-7:2012) 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of an identical text or by endorsement, at the latest by June 2013, and conflicting national standards shall be withdrawn at the latest by June 2013.

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

This document supersedes EN 1402-7:2003.

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### Endorsement notice

The text of ISO 1927-7:2012 has been approved by CEN as a EN ISO 1927-7:2012 without any modification.

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# Monolithic (unshaped) refractory products —

## Part 7: Tests on pre-formed shapes

### 1 Scope

This part of ISO 1927 specifies methods for the testing of as-delivered pre-formed shapes. It applies to shapes fabricated from dense and insulating castables and ramming materials as defined in ISO 1927-1.

NOTE Acceptance values for the individual test methods described should be agreed between the parties involved.

### 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 1927-6, *Monolithic (unshaped) refractory products — Part 6: Measurement of physical properties*

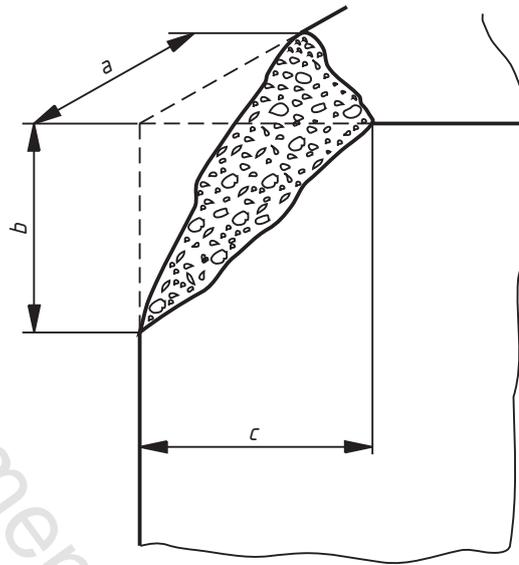
### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

##### corner defect

missing corner, defined by the three dimensions  $a$ ,  $b$  and  $c$  as indicated in Figure 1

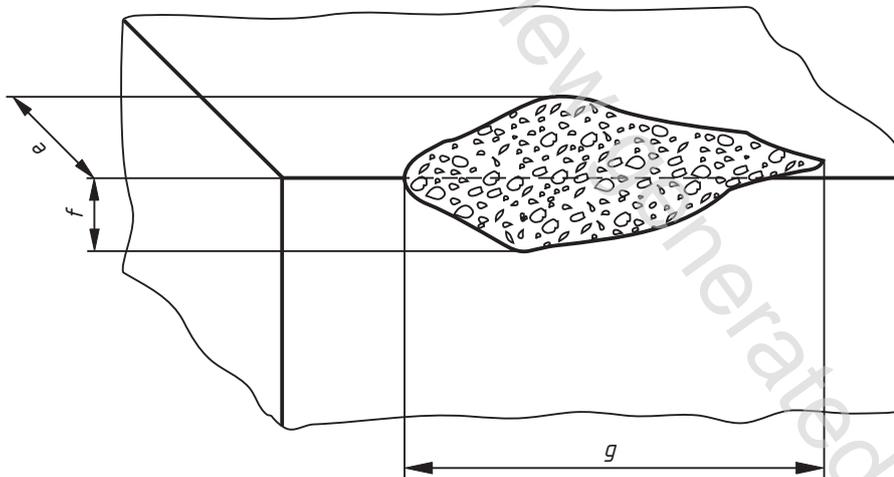


**Key**  
*a, b and c* Three dimensions defining the missing corner

**Figure 1 — Typical corner defect**

**3.2 edge defect**

missing edge, defined by the three dimensions, *e, f, and g* as indicated in Figure 2



**Key**  
*e, f, and g* Three dimensions defining the missing edge

**Figure 2 — Typical edge defect**

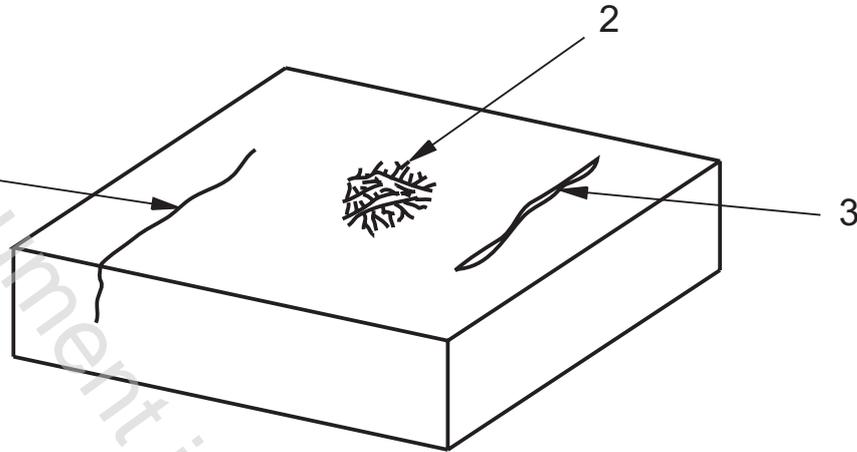
**3.3 crater**

clearly defined hole in the surface of a shape whose parameters, i.e. maximum diameter, minimum diameter and depth, can be measured

NOTE Its origin can be a bubble produced during manufacture.

### 3.4 hairline cracks

fine cracks visible on the surface of a shape whose length can be measured and whose width is less than or equal to 0,2 mm, see Figure 3



#### Key

- |   |                 |
|---|-----------------|
| 1 | Hairline crack  |
| 2 | Surface crazing |
| 3 | Open cracks     |

Figure 3 — Typical cracks

### 3.5 surface crazing

network of hairline cracks confined to the surface of the shape, see Figure 3

### 3.6 open cracks

cracks or tears on the surface whose length is more than 10 mm and whose width is more than 0,2 mm  
See Figure 3.

### 3.7 protrusions and indentations

imperfections that can occur during fabrication or firing, if applicable

### 3.8 fins

thin layer of material on the face of a shape that projects beyond the edge

### 3.9 segregation

separation of aggregate and fines during fabrication to leave a honeycomb appearance and/or a layer of excess fines

### 3.10 friability

crumbly texture due to poor consolidation and/or mould leakage

### 3.11 warpage

deviation of a plane surface from being flat