

Agglomerated stone — Test methods —

Part 8: Determination of resistance to fixing (dowel hole)

The European Standard EN 14617-8:2007 has the status of a
British Standard

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National foreword

This British Standard is the UK implementation of EN 14617-8:2007.

The UK participation in its preparation was entrusted to Technical Committee B/545, Natural stone.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Künstlich hergestellter Stein - Prüfverfahren - Teil 8:
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(Ankerdornloch)

This European Standard was approved by CEN on 26 August 2007.

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Contents

	Page
Foreword.....	3
1 Scope	4
2 Normative references	4
3 Principle.....	4
4 Symbols	4
5 Apparatus	4
6 Preparation of the specimens	5
6.1 Sampling	5
6.2 Test specimens	5
6.2.1 General.....	5
6.2.2 Tests.....	5
6.2.3 Number of specimens	5
6.2.4 Surface finish of the specimens.....	5
6.2.5 Dimensions of the specimens	5
6.2.6 Location of the holes.....	6
6.2.7 Dimensions and tolerances of the holes.....	6
6.2.8 Drilling the holes.....	6
6.2.9 Conditioning.....	6
6.2.10 Measuring d and d_1	6
6.3 Clamping device	7
7 Dowels	9
7.1 Dimensions and tolerances	9
7.2 Material	9
7.3 Placing the dowels.....	9
8 Test procedure	9
9 Expression of the results	10
10 Test report	10
Annex A (normative) Statistical evaluation of the test results	12
A.1 Scope	12
A.2 Symbols and definitions	12
A.3 Statistical evaluation of test results	13

Foreword

This document (EN 14617-8:2007) has been prepared by Technical Committee CEN/TC 246 “Natural stones”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by April 2008, and conflicting national standards shall be withdrawn at the latest by April 2008.

Test methods for agglomerated stones consist of the following:

EN 14617-1, *Agglomerated stone — Test methods — Part 1: Determination of apparent density and water absorption*

EN 14617-2, *Agglomerated stone — Test methods — Part 2: Determination of flexural strength (bending)*

EN 14617-4, *Agglomerated stone — Test methods — Part 4: Determination of the abrasion resistance*

EN 14617-5, *Agglomerated stone — Test methods — Part 5: Determination of freeze and thaw resistance*

EN 14617-6, *Agglomerated stone — Test methods — Part 6: Determination of thermal shock resistance*

EN 14617-8, *Agglomerated stone — Test methods — Part 8: Determination of resistance to fixing (dowel hole)*

EN 14617-9, *Agglomerated stone — Test methods — Part 9: Determination of impact resistance*

EN 14617-10, *Agglomerated stone — Test methods — Part 10: Determination of chemical resistance*

EN 14617-11, *Agglomerated stone — Test methods — Part 11: Determination of linear thermal expansion coefficient*

EN 14617-12, *Agglomerated stone — Test methods — Part 12: Determination of dimensional stability*

EN 14617-13, *Agglomerated stone — Test methods — Part 13: Determination of electrical resistivity*

EN 14617-15, *Agglomerated stone — Test methods — Part 15: Determination of compressive strength*

EN 14617-16, *Agglomerated stone — Test methods — Part 16: Determination of dimensions, geometric characteristics and surface quality of modular tiles*

No existing standard is superseded.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard specifies a test method to determine the breaking load at the dowel hole of agglomerated stones slabs used for cladding or lining in buildings.

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.

EN 197-1, *Cement — Part 1: Composition, specifications and conformity criteria for common cements*

EN 10088-1, *Stainless steels — Part 1: List of stainless steels*

EN 12390-4, *Testing hardened concrete — Part 4: Compressive strength — Specification for testing machines*

3 Principle

This test consists of applying a force in a direction perpendicular to the face of a specimen through a dowel previously placed in a hole drilled in one of its sides and measuring the breaking load of the specimen.

4 Symbols

For the purposes of this document, the following symbols apply.

- d is the thickness of the test specimen, in millimetres
- d_1 is the distance from the hole wall to the face where fracture occurs, in millimetres
- b_A is the maximum distance of the centre of the hole to the fracture edge on the face, in millimetres
- F is the individual breaking load, in newtons
- $\bar{d}_1$ is the mean value of d_1 , in millimetres
- $\bar{F}$ is the mean value of F , in newtons
- $\bar{b}_A$ is the mean value of b_A , in millimetres

5 Apparatus

- 5.1** A balance capable of weighing the specimens with an accuracy of 0,1 % of their mass.
- 5.2** A ventilated oven capable of maintaining a temperature of $(70 \pm 5) ^\circ\text{C}$.
- 5.3** A linear measuring device with an accuracy of 0,05 mm.
- 5.4** A rotary drilling machine equipped with a diamond or tungsten carbide tipped bit.
- 5.5** A testing machine of appropriate force in accordance with EN 12390-4 and calibrated according to this European Standard.