

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

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14617-2:2008 sisaldab Euroopa standardi EN 14617-2:2008 ingliskeelset teksti.

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Standard on kättesaadav Eesti standardiorganisatsioonist.

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English Version

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

Pierre agglomérée - Méthodes d'essai - Partie 2 :
Détermination de la résistance à la flexion (traction)

Künstlich hergestellter Stein - Prüfverfahren - Teil 2:
Bestimmung der Biegefestigkeit (Schwenkbiegen)

This European Standard was approved by CEN on 26 April 2008.

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Foreword

This document (EN 14617-2:2008) 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of an identical text or by endorsement, at the latest by December 2008, and conflicting national standards shall be withdrawn at the latest by December 2008.

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 14617-2:2004.

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*

prEN 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*

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 the United Kingdom.

1 Scope

This European standard specifies a method for determination of flexural strength under a concentrated load (bending resistance) of agglomerated stone flat products.

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 12372, *Natural stone test methods - Determination of flexural strength under concentrated load*

EN 14618, *Agglomerated stone – Terminology and classification*

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

3 Principle

The principle of this method is to place a specimen on two rollers and progressively load the specimen in the middle. The breaking load is measured and the flexural strength calculated.

4 Symbols

R_{tf} flexural strength, (MPa)

F breaking load, (Newtons)

l distance between the supporting rollers, in millimetres

b width of the specimen adjacent to the plane of fracture, in millimetres

h thickness of the specimen adjacent to the plane of fracture, in millimetres

L total length of the specimen, in millimetres

5 Apparatus

5.1 Balance capable of weighing the specimen with a precision within 0,01 % of the mass of the specimen.

5.2 Ventilated oven capable of maintaining $(40 \pm 5)^\circ\text{C}$.

5.3 Linear measuring device with an accuracy of 0,05 mm.

5.4 Testing machine of appropriate force, in accordance with EN 12372 and calibrated according to this standard.

5.5 Device for applying loads on the specimen by a centre-point load. It consists of two lower rollers (supporting rollers) and one upper roller (load-applying roller) which shall be centred exactly in the middle between the two supporting rollers (see Figure 1). The distance between the two supporting rollers shall be reported as requested in 6.2.2.