

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

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 14617-2:2016 sisaldab Euroopa standardi EN 14617-2:2016 ingliskeelset teksti.	This Estonian standard EVS-EN 14617-2:2016 consists of the English text of the European standard EN 14617-2:2016.
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.
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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 25 March 2016.

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## European foreword

This document (EN 14617-2:2016) 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of an identical text or by endorsement, at the latest by December 2016, and conflicting national standards shall be withdrawn at the latest by December 2016.

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 14617-2:2008.

Clauses 2, 6.1, 6.2.2, 7 and 9 have been modified and old 6.23 "Tolerance" has been deleted since the last edition of this European Standard.

This European Standard is one of a series of standards for test methods for agglomerated stones which includes the following parts:

- *Part 1: Determination of apparent density and water absorption*
- *Part 2: Determination of flexural strength (bending)*
- *Part 4: Determination of the abrasion resistance*
- *Part 5: Determination of freeze and thaw resistance*
- *Part 6: Determination of thermal shock resistance*
- *Part 8: Determination of resistance to fixing (dowel hole)*
- *Part 9: Determination of impact resistance*
- *Part 10: Determination of chemical resistance*
- *Part 11: Determination of linear thermal expansion coefficient*
- *Part 12: Determination of dimensional stability*
- *Part 13: Determination of electrical resistivity*
- *Part 15: Determination of compressive strength*
- *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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

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

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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*

## 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

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

$R_{tf}$	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 7.