

Paakunud kivi. Seinaplaadid (sise- ja välistöödeks)

**Agglomerated stone - Slabs and tiles for wall finishes
(internal and external)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15286:2013 sisaldab Euroopa standardi EN 15286:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 15286:2013 consists of the English text of the European standard EN 15286:2013.
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 19.06.2013.	Date of Availability of the European standard is 19.06.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.100.15

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

ICS 91.100.15

English Version

Agglomerated stone - Slabs and tiles for wall finishes (internal and external)

Pierres agglomérées - Carreaux et plaques pour finitions murales (intérieures et extérieures)

Künstlich hergestellter Stein - Platten und Fliesen für Wandflächen (innen und außen)

This European Standard was approved by CEN on 25 April 2013.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	4
1 Scope	6
2 Normative references	6
3 Terms and definitions	7
4 Requirements	7
4.1 Geometric characteristics.....	7
4.1.1 Dimensions.....	7
4.1.2 Tolerances in dimensions.....	8
4.1.3 Tolerances in flatness.....	8
4.1.4 Straight angles.....	9
4.1.5 Surface finish	9
4.2 Physical and mechanical characteristics.....	9
4.2.1 General.....	9
4.2.2 Visual appearance	9
4.2.3 Reaction to fire.....	10
4.2.4 Apparent density and water absorption.....	10
4.2.5 Flexural tensile strength	10
4.2.6 Thermal conductivity.....	10
4.2.7 Thermal shock resistance.....	10
4.2.8 Linear thermal expansion coefficient	11
4.2.9 Dimensional stability.....	11
4.2.10 Bond strength/adhesion	11
4.2.11 Resistance to fixings.....	11
4.2.12 Release of dangerous substances.....	11
4.2.13 Durability of flexural strength against freeze and thaw cycles.....	12
5 Test methods.....	12
6 Evaluation of conformity.....	12
6.1 General rules	12
6.2 Initial Type Testing – Type Testing	12
6.2.1 General.....	12
6.2.2 Test samples, testing and compliance criteria.....	13
6.2.3 Test reports	15
6.3 Factory production control (FPC)	15
6.3.1 General.....	15
6.3.2 Requirements.....	15
6.3.3 Product specific requirements.....	19
6.3.4 Initial inspection of factory and of FPC	20
6.3.5 Continuous surveillance of FPC	20
6.3.6 Procedure for modifications.....	21
7 Marking, labelling and packaging	21
Annex A (normative) Determination of dimensions of cladding slabs.....	22
A.1 Measurement of length and width.....	22
A.1.1 Apparatus	22
A.1.2 Test specimens	22
A.1.3 Procedure	22
A.1.4 Expression of results	22
A.1.5 Test report	22
A.2 Measurement of thickness.....	23

A.2.1	Apparatus	23
A.2.2	Test specimens.....	23
A.2.3	Procedure	23
A.2.4	Expression of results	23
A.2.5	Test report.....	23
A.3	Measurement of flatness	23
A.3.1	Apparatus.....	23
A.3.2	Test specimens.....	24
A.3.3	Procedure	24
A.3.4	Expression of results	25
A.3.5	Test report.....	26
Annex B	(normative) Determination of straight angles of cladding slabs and tiles	27
B.1	Apparatus.....	27
B.2	Test specimens.....	27
B.3	Procedure.....	27
B.4	Expression of results	27
B.5	Test report.....	27
Annex C	(normative) Reference sample, visual inspection and acceptance criteria	28
Annex ZA	(informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/106/EEC, Construction Products Directive	30
ZA.1	Scope and relevant characteristics	30
ZA.2	Procedures for attestation of conformity of agglomerated stone cladding slabs and tiles	33
ZA.2.1	Systems of attestation of conformity	33
ZA.2.2	EC certificate of conformity and EC declaration of conformity.....	35
ZA.3	CE marking and labelling.....	36
Bibliography		42

Foreword

This document (EN 15286:2013) 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 2013, and conflicting national standards shall be withdrawn at the latest by December 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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This document is one of a series of European Standards for specifications of agglomerated stone products, which includes the following:

- EN 15285, *Agglomerated stone — Modular tiles for flooring and stairs (internal and external)*
- EN 15286, *Agglomerated stone — Slabs and tiles for wall finishes (internal and external)*
- EN 15388, *Agglomerated stone — Slabs and cut-to-size products for vanity and kitchen tops*

NOTE 1 A document on slabs and other cut-to-size products for flooring and stairs (internal and external) is under development within CEN/TC 246/WG 4.

NOTE 2 An overview on standards for agglomerated stone products is given in Table 1.

Table 1 — Standards for agglomerated stone products

<i>Harmonised product standards</i>	EN 15285 <i>Modular tiles for flooring and stairs (int. & ext.) (under M/119)</i>	EN 15286 <i>Slabs and tiles for wall finishes (int. & ext.) (under M/121)</i>
<i>Non-harmonised product standards</i>	EN 15388 <i>Slabs and cut-to-size products for vanity and kitchen tops</i>	
<i>Main supporting standards</i>	EN 14617 (all parts) <i>Test methods</i>	EN 14618 <i>Terminology and classification</i>
NOTE A document on <i>Slabs and other cut-to-size products for flooring and stairs (int. & ext.) (under M/119)</i>) is under development within CEN/TC 246/WG 4.		

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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.

This document is a preview generated by EVS

1 Scope

This European Standard specifies requirements and appropriate test methods for cladding slabs and tiles of agglomerated stone of length or width up to 3 500 mm which are made for use as internal and external wall finishes and are either fixed mechanically or glued by adhesive or mortar. It also provides provisions for the evaluation of conformity and marking of these products.

This standard does not cover cladding slabs and tiles of agglomerated stone used for internal and external ceiling finishes. In addition, it does not cover slabs and tiles of agglomerated stone intended to be used in suspended ceilings. Products covered by the standards EN 14992, EN 13198, EN 13748-1 and EN 13748-2 are also excluded from the scope of the present standard.

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 1015-12, *Methods of test of mortar for masonry — Part 12: Determination of adhesive strength of hardened rendering and plastering mortars on substrates*

EN 1324, *Adhesives for tiles — Determination of shear adhesion strength of dispersion adhesives*

EN 1348, *Adhesives for tiles — Determination of tensile adhesion strength for cementitious adhesives*

EN 12003, *Adhesive for tiles — Determination of shear adhesion strength of reaction resin adhesives*

EN 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 13823, *Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item*

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 14617-5, *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 14617-11, *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 14617-16, *Agglomerated stone — Test methods — Part 16: Determination of dimensions, geometric characteristics and surface quality of modular tiles*

EN 14618:2009, *Agglomerated stone — Terminology and classification*

EN ISO 10456, *Building materials and products — Hygrothermal properties — Tabulated design values and procedures for determining declared and design thermal values (ISO 10456)*