Agglomerated stone - Test methods - Part 1: Determination of apparent density and water absorption

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN 14617-1:2013 sisaldab Euroopa standardi EN 14617-1:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 14617-1:2013 consists of the English text of the European standard EN 14617-1:2013.
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 10.04.2013.	Date of Availability of the European standard is 10.04.2013.
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.

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Agglomerated stone - Test methods - Part 1: Determination of apparent density and water absorption

Pierre agglomérée - Méthodes d'essai - Partie 1 : Détermination de la masse volumique apparente et du coefficient d'absorption d'eau

Künstlich hergestellter Stein - Prüfverfahren - Teil 1: Bestimmung der Rohdichte und der Wasseraufnahme

This European Standard was approved by CEN on 1 March 2013.

EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 14617-1:2013) 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of an identical text or by endorsement, at the latest by October 2013, and conflicting national standards shall be withdrawn at the latest by October 2013.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 14617-1:2005.

Subclause 5.1 has been modified since the last edition of this European Standard.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

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 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.

1 Scope

This European Standard specifies a method for determining the apparent density and water absorption of agglomerated stone products.

2 Terms and definitions

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

2.1
apparent density
M_v
ratio between mass (expressed in kg) and apparent volume (expressed in m^3) situated within the external surface of the body

2.2
water absorption
C
maximum amount of water absorbed by the material when soaked in deionised water at room temperature and pressure according to the procedure described below, expressed as a percentage of the dry mass of the sample

3 Apparatus

3.1 A covered tank with a flat base comprising small non-oxidising and non-absorbent supports for the specimens.

3.2 A device able to maintain a constant water level in the tank, described in 4.1.

3.3 A time counter with an accuracy of one second.

3.4 A weighing instrument with an accuracy of 0,01 % of the sample mass.

3.5 A hydrostatic balance accurate to at least 0,01 % of the sample mass.

3.6 A ventilated oven capable of maintaining a temperature of (70 ± 5) °C.

4 Preparation of the specimens

4.1 Sampling

The sampling is not the responsibility of the test laboratory except where especially requested. At least six specimens selected from a homogeneous batch consisting of the same material mixture should be tested. The final finishing of the specimen should be the same as the end product (sand blasted, gauged or polished surface) but without chemical surface treatment. The dimensions of the sample are (100 x 100) mm length and width and (10 ± 2) mm thickness.

4.2 Specimen conditioning

The specimens should be dried in a stove at (70 ± 5) °C until the difference between two successive weighings at (24 ± 2) h intervals is less than 0,1 % of the sample mass. The specimens shall be kept in a desiccator until room temperature (20 ± 5) °C is attained.