BS EN 14617-1:2013

BSI Standards Publication

Agglomerated stone — Test methods

Part 1: Determination of apparent density and water absorption

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National foreword

This British Standard is the UK implementation of EN 14617-1:2013. It supersedes BS EN 14617-1:2005 which is withdrawn.

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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Compliance with a British Standard cannot confer immunity from legal obligations.

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English Version

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.

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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of an identical text or by endorsement, at the latest by October 2013, and conflicting national standards shall be withdrawn at the latest by October 2013.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*

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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.