Agglomerated stone - Test methods - Part 12: Determination of dimensional stability

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 14617-12:2005 sisaldab Euroopa standardi EN 14617-12:2005 ingliskeelset teksti. Käesolev dokument on jõustatud 30.05.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 14617-12:2005 consists of the English text of the European standard EN 14617-12:2005. This document is endorsed on 30.05.2005 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European standard specifies a test method to determine the dimensional stability, intended as the evaluation of a deformation, towards a bearing plane, by prolonged contact with water, of agglomerated stones tiles used for flooring and cladding in building. The test is mainly performed to select a suitable adhesive for the laying down operations.	**Scope:** This European standard specifies a test method to determine the dimensional stability, intended as the evaluation of a deformation, towards a bearing plane, by prolonged contact with water, of agglomerated stones tiles used for flooring and cladding in building. The test is mainly performed to select a suitable adhesive for the laying down operations.

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Agglomerated stone - Test methods - Part 12: Determination of dimensional stability

Pierre agglomérée - Méthodes d'essai - Partie 12: Détermination de la stabilité dimensionnelle

Künstlich hergestellter Stein - Prüfverfahren - Teil 12: Bestimmung der Maßhaltigkeit

This European Standard was approved by CEN on 3 February 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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Contents

Foreword

This document (EN 14617-12:2005) 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 September 2005, and conflicting national standards shall be withdrawn at the latest by September 2005.

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)*

prEN 14617-3, *Agglomerated stone - Test methods – Part 3: Determination of slipperiness*

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 14617-7, *Agglomerated stone – Test methods – Part 7: Determination of ageing*

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*

prEN 14617-14, *Agglomerated stone – Test methods – Part 14: Determination of surface hardness*

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*

prEN 14617-17, *Agglomerated stone – Test methods – Part 17: Determination of biological resistance*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This document specifies a test method to determine the dimensional stability, intended as the evaluation of a deformation, towards a bearing plane, by prolonged contact with water, of agglomerated stones tiles used for flooring and cladding in building.

The test is mainly performed to select a suitable adhesive for the laying down operations.

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.

Not applicable.

3 Principle

The principle of the dimensional stability determination consists of measuring the vertical displacement of a corner of the tile to a reference plane[1)], subsequently to a prolonged contact with a cloth placed on a tile surface, which is constantly kept humidified.

The tile is placed on three supports positioned near three corners of the tile, with the finished side (flooring or cladding surface) turned to the bottom, whereas a dial gauge measures the vertical deformation of the fourth free corner. Other possible deformation of the tile can be measured by five dial gauges, arranged as in Figure 1.

4 Apparatus

4.1 A suitable instrument (Figure 1), consisting of a grinded surface with the supports for the tile and the dial gauges for the deformation measurement.

4.2 Six dial gauges, with accuracy of 0,01 mm, which record the tile deformation.

4.3 A wet cloth (or a felt) which is placed on the upper surface of the tile.

4.4 A water spray dispenser to keep the cloth or the felt humid (at room and water temperature 20°C ± 5°C).

4.5 A recording system connected to the dial gauges for the recording of measured values.

1) In ISO 1101 this geometrical tolerance is defined as follows: "The tolerance zone is limited by two parallel planes a distance *t* apart and parallel to the datum."