

Natural stone test methods - Determination of water absorption at atmospheric pressure

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13755:2002 sisaldab Euroopa standardi EN 13755:2001 + AC:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 14.03.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13755:2002 consists of the English text of the European standard EN 13755:2001 + AC:2003.</p> <p>This document is endorsed on 14.03.2002 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This standard specifies a method for determining the water absorption of natural stone - see EN 12670 for terminology and EN 12440 for denomination - by immersion in water at atmospheric pressure.</p>	<p>Scope:</p> <p>This standard specifies a method for determining the water absorption of natural stone - see EN 12670 for terminology and EN 12440 for denomination - by immersion in water at atmospheric pressure.</p>
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ICS 73.020, 91.100.10

Võtmesõnad: atmospheric pressures, construction, determination, dip coating, immersion, materials testing, natural stone, natural stones, preparation, procedures, symbols, test specimens, testing, water absorption

ICS 73.020; 91.100.15

English version

Natural stone test methods - Determination of water absorption at atmospheric pressure

Méthodes d'essai pour pierres naturelles - Détermination
de l'absorption d'eau à la pression atmosphérique

Prüfverfahren für Naturstein - Bestimmung der
Wasseraufnahme unter atmosphärischem Druck

This European Standard was approved by CEN on 21 October 2001.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

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Foreword

This European Standard 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 June 2002, and conflicting national standards shall be withdrawn at the latest by December 2002.

This European Standard is one of the series of standards for tests on natural stone.

Test methods for natural stone consist of the following parts:

EN 1925, *Natural stone test methods - Determination of water absorption coefficient by capillarity*

EN 1926, *Natural stone test methods - Determination of compressive strength*

EN 12370, *Natural stone test methods - Determination of resistance to salt crystallisation*

EN 12372, *Natural stone test methods - Determination of flexural strength under concentrated load*

EN 12407, *Natural stone test methods – Petrographic description*

prEN 12371, *Natural stone test methods - Determination of frost resistance*

prEN 13161, *Natural stone test methods - Determination of flexural strength under constant moment*

prEN 13364, *Natural stone test methods - Determination of the breaking load at a dowel hole*

prEN 13373, *Natural stone test methods - Determination of geometric characteristics on units*

prEN 13919, *Natural stone test methods - Determination of resistance to ageing by SO₂ action in the presence of humidity*

prEN 14066, *Natural stone test methods - Determination of resistance to ageing thermal shock*

prEN(WI 00246011), *Natural stone test methods - Determination of thermal dilatation coefficient*

prEN(WI 00246012), *Natural stone test methods - Determination of sound - speed propagation*

prEN 14146, *Natural stone test methods - Determination of dynamic elastic modulus (by fundamental resonance frequency)*

prEN 14147, *Natural stone test methods - Determination of resistance to ageing by salt mist*

prEN 14157, *Natural stone test methods - Determination of abrasion resistance*

prEN 14158, *Natural stone test methods - Determination of rupture energy*

prEN 14205, *Natural stone test methods - Determination of Knoop hardness*

prEN 14231, *Natural stone test methods - Determination of slip resistance by means of the pendulum tester*

prEN(WI 00246018), *Natural stone test methods - Determination of static elastic modulus*

It is intended that other ENs should call up this European Standard as the basis of evaluation of conformity. (Nevertheless it is not intended that all natural stones products should be subjected regularly to all the listed tests. Specifications in other standards should call up only relevant test methods.

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

1 Scope

This European Standard specifies a method for determining the water absorption of natural stone – see EN 12670 for terminology and EN 12440 for denomination - by immersion in water at atmospheric pressure.

2 Normative references

None.

3 Principle

After drying to a constant mass, each specimen is weighted and then immersed in water at atmospheric pressure for a specified period of time. The ratio of the mass of water absorbed by each specimen when constant mass is reached.

4 Symbols

m_d mass of the dry specimen, in grams;

m_i successive masses of the specimen during testing, in grams;

m_s mass of the saturated specimen (after immersion in water until constant mass is reached), in grams;

A_b water absorption at atmospheric pressure, expressed as a percentage.

5 Apparatus

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

5.2 A ventilated oven which can maintain a temperature of $(70 \pm 5) ^\circ\text{C}$.

5.3 A weighing instrument with an accuracy of 0,01 g.