Müürikivide katsemeetodid. Osa 11: Betoonist, autoklaavitud poorbetoonist ja tehis- ning looduskivist müürikivide kapillaarse veeimavuse ning keraamiliste müürikivide veeimavuse algkiiruse määramine

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# EESTI STANDARDI EESSÕNA

# NATIONAL FOREWORD

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# EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

EN 772-11

May 2011

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Supersedes EN 772-11:2000

#### **English Version**

Methods of test for masonry units - Part 11: Determination of water absorption of aggregate concrete, autoclaved aerated concrete, manufactured stone and natural stone masonry units due to capillary action and the initial rate of water absorption of clay masonry units

Méthodes d'essai des éléments de maçonnerie - Partie 11: Détermination de l'absorption de l'eau par capillarité des éléments de maçonnerie en béton de granulats, en béton cellulaire autoclavé, en pierre reconstituée et naturelle et du taux initial d'absorption d'eau des éléments de maçonnerie en terre cuite Prüfverfahren für Mauersteine - Teil 11: Bestimmung der kapillaren Wasseraufnahme von Mauersteinen aus Beton, Porenbetonsteinen, Betonwerksteinen und Natursteinen sowie der anfänglichen Wasseraufnahme von Mauerziegeln

This European Standard was approved by CEN on 25 December 2010.

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.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels



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#### **Foreword**

This document (EN 772-11:2011) has been prepared by Technical Committee CEN/TC 125 "Masonry", the secretariat of which is held by BSI.

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 November 2011, and conflicting national standards shall be withdrawn at the latest by November 2011.

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 772-11:2000.

Annex A provides details of significant technical changes between this European Standard and the previous edition.

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



#### 1 Scope

This European Standard specifies a method of determining the water absorption coefficient due to capillary action for aggregate concrete, autoclaved aerated concrete, natural stone and manufactured stone masonry units and the initial rate of water absorption for clay masonry units.

#### 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.

EN 771-1, Specification for masonry units — Part 1: Clay masonry units

EN 771-2, Specification for masonry units — Part 2: Calcium silicate masonry units

EN 771-3, Specification for masonry units — Part 3: Aggregate concrete masonry units (Dense and light-weight aggregates)

EN 771-4, Specification for masonry units — Part 4: Autoclaved aerated concrete masonry units

EN 771-5, Specification for masonry units — Part 5: Manufactured stone masonry units

EN 771-6, Specification for masonry units — Part 6: Natural stone masonry units

EN 772-16, Methods of test for masonry units — Part 16: Determination of dimensions

## 3 Principle

After drying to constant mass, a face of the masonry unit is immersed in water for a specific period of time and the increase in mass is determined.

In the case of clay masonry units the initial rate of absorption of the bed face is measured. In the case of aggregate concrete, autoclaved aerated concrete, natural stone and manufactured stone masonry units the water absorption of face of the unit to be exposed is measured, as described in the relevant product standard.

### 4 Symbols

 $m_{\text{dry,s}}$  is the mass of the specimen after drying, (g);

 $m_{\rm SO.S}$  is the mass of the specimen in grams after soaking for time t, (g);

 $A_s$  is the gross area of the face of the specimen immersed in water, (mm<sup>2</sup>);

 $t_{SO}$  is the time of soaking, (s);

NOTE Specified in the relevant part of EN 771.

c<sub>w,s</sub> is the coefficient of water absorption due to capillary action for aggregate concrete autoclaved aerated concrete, natural stone and manufactured stone masonry units;

 $c_{\text{wi},s}$  is the initial rate of water absorption for clay masonry units, [kg/(m<sup>2</sup> × min)].