EESTI STANDARD EVS-EN 1353:2000

Autoklaavse mullbetooni niiskussisalduse määramine

Determination of moisture content of autoclaved aerated concrete

EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1353:2000 sisaldab Euroopa standardi EN 1353:1996 ingliskeelset teksti. Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 1353:2000 consists of the English text of the European standard EN 1353:1996. This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: See Euroopa standard piiritleb niiskussisalduse määramise meetodi autoklaavsest mullbetoonist valmiselementides.	**Scope:**

ICS 91.100.30

Võtmesõnad: ajaühiku kohta, arvutused, astmed, betoon, kaalukaod, kuivatus, mullbetoon, määramine, niiskus, teimid

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1353

December 1996

ICS 91.100.30

Descriptors: Concrete, autoclaved aerated concrete, moisture content, testing.

English version

Determination of moisture content of autoclaved aerated concrete

Détermination du taux d'humidité du béton cellulaire autoclavé

Bestimmung des Feuchtegehalts von dampfgehärtetem Porenbeton

This European Standard was approved by CEN on 1996-11-30.

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.

The European Standards exist 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.

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

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Contents

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 177 'Prefabricated reinforced components of autoclaved aerated concrete or lightweight aggregate concrete with open structure', the Secretariat of which is held by DIN.

In order to meet the performance requirements as laid down in the product standard for prefabricated components of autoclaved aerated concrete, a number of standardized test methods are necessary.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by June 1997 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, 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 of determining the moisture content of prefabricated components of autoclaved aerated concrete (AAC)[1]).

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

(See footnote 1.)

3 Principle

Prismatic specimens (prisms, cubes, or cylinders) are taken from prefabricated components, making provision that the moisture content remains unchanged until the first weighing. The mass of the specimens is determined in the moist state and after drying to constant mass at (105 ± 5) °C. Furthermore, the volume of the specimens is determined from the measured dimensions.

The moisture content is calculated from the mass loss through drying, related to the mass or to the volume of the dried specimens.

[1]) A European Standard for prefabricated reinforced components of autoclaved aerated concrete is in preparation.

4 Apparatus

The following apparatus shall be used:

a) Saw, suitable for cutting reinforced AAC components without disturbing the moisture content of the AAC.

b) Calipers, capable of reading the dimensions of specimens to an accuracy of 0,1 mm.

c) Balance, capable of determining the mass of specimens to an accuracy of 0,1 %.

d) Ventilated oven, capable of maintaining a temperature of (105 ± 5) °C.

5 Test specimens

5.1 Sample

The sample for specimen preparation (i.e. normally, at least one prefabricated component) shall be taken so as to be representative of the product to be investigated.

5.2 Shape and size of test specimens

The specimens shall be prisms, cubes, or cylinders with a minimum dimension of at least 50 mm and a volume of at least $0{,}5 \times 10^{-3}$ m^3 each.

5.3 Number of test specimens

A test set shall consist of at least three specimens.

Whenever possible, one specimen shall be prepared from the upper third of the component, one from the middle and one from the lower third, in the direction of rise of the mass during manufacture (see figure 1).

The position of the specimens in the material, relative to the rise of the mass, shall be shown by the numbering.

Alternatively, one single specimen is sufficient, if it extends over the full height of the rise of the mass and if its volume