

**Betoonvalmistooted. Klaaskiudbetooni
teimimismeetod. Osa 7:
Niiskusesisaldusest tingitud mõõtmete
piirmuutuste määramine**

Precast concrete products - Test method for glass-fibre reinforced cement - Part 7: Measurement of extremes of dimensional variations due to moisture content

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1170-7:2000 sisaldab Euroopa standardi EN 1170-7:1997 ingliskeelset teksti. Käesolev dokument on jõustatud 19.07.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 1170-7:2000 consists of the English text of the European standard EN 1170-7:1997. This document is endorsed on 19.07.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: See Euroopa standard esitab teimimismeetodi klaaskiudbetooni mõõtmete maksimaalse muutuse (kahanemise ja paisumise) määramiseks sõltuvalt tarielemendi veesisaldusest.	Scope:
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ICS 91.100.40

Võtmesõnad: betoontooted, ilmastikukindlus, klaas, komposiitmaterjalid, kontroll, mõõtmised, mõõtmete püsivus, sisalduse määramine, tarielemendid, tsemendid, vastavusteimid, vesi

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Descriptors: Glass fibre reinforced cement, dimensional variations, testing.

English version

Precast concrete products

Test method for glass fibre reinforced cement

Part 7: Measurement of extremes of dimensional variations
due to moisture content

Produits préfabriqués en béton –
Méthode d'essai des composites
ciment-verre – Partie 7: Mesure des
variations dimensionnelles extrêmes
en fonction de la teneur en eau

Vorgefertigte Betonerzeugnisse –
Prüfverfahren für Glasfaserbeton –
Teil 7: Bestimmung der feuchtig-
keitsabhängigen Längenänderungen

This European Standard was approved by CEN on 1997-10-29.

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.

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CEN

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 229 "Precast concrete products", the secretariat of which is held by AFNOR.

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 May 1998, and conflicting national standards shall be withdrawn at the latest by May 1998.

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 test method for identifying the maximum dimensional variations (residual hydraulic shrinkage and reversible expansion) of a GRC composition attributable to variations in the water content to which products exposed to the elements may be subjected.

2 Symbols and abbreviations

2.1 Symbols

- ℓ_0 : distance between pads measured at the beginning of the test, expressed in micrometres ;
- ℓ_1 : distance between pads measured after 96 h immersion, expressed in micrometres ;
- ℓ_2 : distance between pads measured after 21 days drying in oven and 6 h stabilization, expressed in micrometres ;
- m_0 : mass of test piece at the beginning of the test, in grams ;
- m_1 : mass of test piece after 96 h immersion, in grams ;
- m_2 : mass of test piece after 21 days oven drying and 6 h stabilization, in grams ;
- $\frac{\Delta \ell_c}{\ell}$: value of extreme dimensional variation, in millimetres per metre ;
- $\frac{\Delta \ell_e}{\ell}$: value of expansion, in millimetres per metre. This is the arithmetic mean of the expansion values of the three test pieces tested ;
- $\frac{\Delta \ell_s}{\ell}$: value of residual shrinkage, in millimetres per metre. This is the arithmetic mean of the shrinkage values of the three test pieces tested.

2.2 Abbreviation

GRC : Glass fibre reinforced cement.

3 Apparatus

The apparatus comprises :

- a scale with a measuring range 0 kg to 2 kg, accurate to 0,1 g ;
- a ventilated drying oven maintained a temperature of $(33 \pm 3) ^\circ\text{C}$;
- a test board made of smooth, easily cleaned material, approximately (500 x 800) mm. With "premix" production, provide a frame of thickness equal to that of the product manufactured ;