

Determination of shear strength of welded joints of reinforcement mats or cages for prefabricated components made of autoclaved aerated concrete or lightweight aggregate concrete with open structure

Determination of shear strength of welded joints of reinforcement mats or cages for prefabricated components made of autoclaved aerated concrete or lightweight aggregate concrete with open structure

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1737:1999 sisaldab Euroopa standardi EN 1737:1998 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1737:1999 consists of the English text of the European standard EN 1737:1998.</p> <p>This document is endorsed on 23.11.1999 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>
--	---

<p>Käsitlusala: This European Standard specifies a method of determining the shear strength of welded joints in reinforcements intended for use in prefabricated components made of autoclaved aerated concrete (AAC) according to prEN 12602 or lightweight aggregate concrete with open structure (LAC) according to EN 1520.</p>	<p>Scope: This European Standard specifies a method of determining the shear strength of welded joints in reinforcements intended for use in prefabricated components made of autoclaved aerated concrete (AAC) according to prEN 12602 or lightweight aggregate concrete with open structure (LAC) according to EN 1520.</p>
--	--

ICS 91.100.30

Võtmesõnad: aggregates, cellular concrete, concrete, determination, mechanical tests, prefabricated elements, reinforcing materials, shear strength, shear tests, test specimen, welded wire lattice

ICS 91.100.30

Descriptors: Concrete, reinforcement mats, prefabricated components, testing.

English version

Determination of shear strength of welded joints of reinforcement mats or cages for prefabricated components made of autoclaved aerated concrete or lightweight aggregate concrete with open structure

Détermination de la résistance au cisaillement des jonctions soudées des treillis ou corbeilles d'armatures pour les éléments préfabriqués réalisés en béton cellulaire autoclavé ou en béton de granulats légers à structure ouverte

Bestimmung der Bruchscherkraft von Schweißknoten von Betonstahlmatten oder Bewehrungskörben für vorgefertigte Bauteile aus dampfgehärtetem Porenbeton oder haufwerksporigem Leichtbeton

This European Standard was approved by CEN on 1998-03-25 .

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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Contents

	Page
Foreword	3
1 Scope	3
2 Normative references	3
3 Principle	3
4 Apparatus	4
5 Test specimens	5
5.1 Sample	5
5.2 Shape and size of test specimens	5
5.3 Number of test specimens	6
5.4 Preparation of test specimens	6
5.5 Measurement of test specimens	6
5.6 Conditioning of test specimens	7
6 Testing procedure	7
7 Test results	7
8 Test report	7

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 177 " Prefabricated reinforced components of autoclaved aerated concrete or light-weight 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 standards for prefabricated components of autoclaved aerated concrete and of lightweight aggregate concrete with open structure, 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, at the latest by October 1998, and conflicting national standards shall be withdrawn at the latest by October 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 method of determining the shear strength of welded joints in reinforcements intended for use in prefabricated components made of autoclaved aerated concrete (AAC) according to prEN 12602 or lightweight aggregate concrete with open structure (LAC) according to prEN 1520.

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.

prEN 1520 Prefabricated components of lightweight aggregate concrete with open structure.

prEN 12602 Prefabricated reinforced components of autoclaved aerated concrete

3 Principle

The shear strength of welded joints is determined on test specimens consisting of a longitudinal bar and a welded transverse bar or diagonal bar.

In the case of welded joints, where the transverse bar forms an angle of 90° with the longitudinal bar, the test load is applied as a tensile force on the free end of the longitudinal bar, while the welded transverse bar is supported by a device designed to minimize influence from bending and twisting forces (see NOTE 1).

When joints with a diagonal bar are tested, the test load is applied to the free end of the diagonal bar while the longitudinal bar is supported (see NOTE 2).