

საქართველოს სტანდარტი

განშრევებული ცემენტის პროფილის შრეები და ფიტინგები. ნაწარმის
სპეციფიკაცია და ტესტ მეთოდები

საქართველოს სტანდარტებისა და მეტროლოგიის
ეროვნული სააგენტო
თბილისი

საინფორმაციო მონაცემები

1 შემუშავებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს სტანდარტების დეპარტამენტის მიერ

2 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს 2018 წლის 17 აგვისტოს № 85 განკარგულებით

3 მიღებულია გარეკანის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 494:2012+A1:2015 „ განშრევებული ცემენტის პროფილის შრეები და ფიტინგები. ნაწარმის სპეციფიკაცია და ტესტ მეთოდები“

4 პირველად

5 რეგისტრირებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2018 წლის 17 აგვისტო №268-1.3-013884

აკრძალულია ამ სტანდარტის გადაცემა მესამე პირებისათვის ან/და მისი სხვა ფორმით გავრცელება

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

English Version

Fibre-cement profiled sheets and fittings - Product specification and test methods

Plaques profilées en fibres-ciment et accessoires -
Spécifications du produit et méthodes d'essai

Faserzement-Wellplatten und dazugehörige Formteile
- Produktspezifikation und Prüfverfahren

This European Standard was approved by CEN on 11 August 2012 and includes Amendment 1 approved by CEN on 6 June 2015.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

European foreword..... 4

1 Scope 5

2 Normative references 5

3 Terms and definitions 6

4 Symbols and abbreviations 7

5 Product requirements 8

5.1 General..... 8

5.1.1 Composition 8

5.1.2 Appearance and finish..... 8

5.2 Dimensions and tolerances 9

5.2.1 General..... 9

5.2.2 Categorisation by height of profile 9

5.2.3 Thickness 9

5.2.4 Tolerances on nominal dimensions 10

5.3 Physical requirements and characteristics for fibre-cement profiled sheets 11

5.3.1 General..... 11

5.3.2 Apparent density..... 11

5.3.3 Mechanical characteristics 11

5.3.4 Water impermeability..... 12

5.4 Durability requirements 12

5.4.1 General..... 12

5.4.2 Freeze-thaw..... 12

5.4.3 Heat-rain 13

5.4.4 Warm water 13

5.4.5 Soak-dry..... 13

5.5 Summary of characteristics and classification 13

5.5.1 Summary of characteristics..... 13

5.5.2 Classification..... 13

5.6 Fire and safety 14

5.6.1 External fire performance 14

5.6.2 Reaction to fire..... 14

5.6.3 Release of dangerous substances..... 14

5.7 Product information 14

6 Assessment and verification of constancy of performance - AVCP 15

6.1 General..... 15

6.2 Type testing..... 15

6.2.1 General..... 15

6.2.2 Test samples, testing and compliance criteria 16

6.2.3 Test reports..... 16

6.3 Factory production control (FPC) 16

6.3.1 General..... 16

6.3.2 Requirements 17

6.3.3 Product specific requirements..... 19

6.3.4 Initial inspection of factory and of FPC 19

6.3.5 Continuous surveillance of FPC..... 20

საინფორმაციო ნაწილი. სრული ტექსტის სახსრად შეიძინეთ სტანდარტი.

6.3.6	Procedure for modifications.....	20
6.4	Inspection of a consignment of finished products.....	20
7	Test methods.....	21
7.1	General.....	21
7.2	Dimensional tests.....	21
7.2.1	Dimensional tests for sheets.....	21
7.2.2	Dimensional tests for fittings.....	24
7.3	Tests for physical performance and characteristics.....	24
7.3.1	Apparent density.....	24
7.3.2	Mechanical characteristics.....	25
7.3.3	Water impermeability.....	28
7.3.4	Warm water.....	29
7.3.5	Soak-dry.....	30
7.4	Tests for climatic performance.....	31
7.4.1	Freeze-thaw.....	31
7.4.2	Heat-rain.....	33
7.4.3	Freeze-thaw test for fittings.....	34
7.5	Test for fire performance.....	34
7.5.1	Test for external fire performance.....	34
7.5.2	Test for reaction to fire.....	35
8	Marking, labelling and packaging.....	40
Annex A	(normative) Figures.....	41
Annex B	(normative) Consignment inspection sampling.....	53
Annex C	(normative) Statistical method for determining the corresponding wet values or revised dry specifications for the breaking load and/or bending moment when carrying out the dry method of test for quality control purposes.....	54
C.1	Procedure.....	54
C.2	Determination of the correlation between the results of testing wet and dry specimens.....	54
C.3	Determination of the regression line.....	55
C.4	Determination of a value for wet testing from an obtained value for dry testing.....	55
C.5	Determination of the minimum value specified for dry testing x_{std} corresponding to the minimum value specified for wet testing in this document y_{std}	56
Annex ZA	(informative) \square_{A1} Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation \square_{A1}	58
ZA.1	Scope and relevant characteristics.....	58
ZA.2	Procedure for AVCP of fibre - cement profiled sheets and fittings.....	60
ZA.2.1	Systems of AVCP.....	60
ZA.2.2	Declaration of performance (DoP).....	65
ZA.3	CE marking and labelling.....	68
Bibliography	71

European foreword

This document (EN 494:2012+A1:2015) has been prepared by Technical Committee CEN/TC 128 "Roof covering products for discontinuous laying and products for wall cladding", the secretariat of which is held by NBN.

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 March 2016, and conflicting national standards shall be withdrawn at the latest by June 2017.

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 includes Amendment 1 approved by CEN on 6 June 2015.

This document supersedes **A1** EN 494:2012 **A1**.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

A1 This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of the EU Construction Products Regulation 305/2011.

For relationship with the EU Regulation 305/2011, see informative Annex ZA, which is an integral part of this document. **A1**

A1 When comparing EN 494:2004+A3:2007 and the previous edition EN 494:2012, the following paragraphs had been changed or added: 3.10, 3.11, 5.1.1, Table 2, 5.3.3.1, 5.3.3.4, 5.6.3, Table 6, 6.3.2, 7.4.2.1 and Annex ZA. **A1**

A distinction has been made between product appraisal (type tests) and routine quality control requirements (acceptance tests).

The performance of a roof or another building part constructed with these products depends not only on the properties of the product as required by this document, but also on the design, construction and installation of the components as a whole in relation to the environment and conditions of use.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

საინფორმაციო ნაწილი. სრული ტექსტის ხანახავად შეიძინეთ სტანდარტი.