

## საქართველოს სტანდარტი

---

თბოიზოლაციის პროდუქტები შენობებისათვის - ქარხნული წესით  
დამზადებული ფიჭვური გაზის (CG) პროდუქტი - სპეციფიკაცია

საქართველოს სტანდარტებისა და მეტროლოგიის  
ეროვნული სააგენტო  
თბილისი

სსტ ენ 13167:2012+A1:2015/2015

## საინფორმაციო მონაცემები

1 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს 2015 წლის 2 დეკემბრის № 91 და 2015 წლის 09 ივლისის № 46 განკარგულებებით

2 მიღებულია გარეკანის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 13167:2012+A1:2015 „თბოიზოლაციის პროდუქტები შენობებისათვის - ქარხნული წესით დამზადებული ფიჭვური გაზის (CG) პროდუქტი - სპეციფიკაცია“

### 3 პირველად

4 რეგისტრირებულია საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2015 წლის 2 დეკემბერი №268-1.3-8315

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

English Version

## Thermal insulation products for buildings - Factory made cellular glass (CG) products - Specification

Produits isolants thermiques pour le bâtiment - Produits manufacturés en verre cellulaire (CG) - Spécification

Wärmedämmstoffe für Gebäude - Werkmäßig hergestellte Produkte aus Schaumglas (CG) - Spezifikation

This European Standard was approved by CEN on 6 October 2012 and includes Amendment 1 approved by CEN on 15 December 2014.

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

Foreword.....4

1 Scope .....6

2 Normative references .....6

3 Terms, definitions, symbols, units and abbreviated terms .....7

4 Requirements ..... 11

5 Test methods..... 17

6 Designation code ..... 19

7 Assessment and Verification of the Constancy of Performance (AVCP) ..... 20

8 Marking and labelling ..... 21

Annex A (normative) Determination of the declared values of thermal resistance and thermal conductivity ..... 23

Annex B (normative)  $\text{A}_1$  Product type determination  $\text{A}_1$  ( $\text{A}_1$  PTD  $\text{A}_1$ ) and factory production control (FPC) ..... 25

Annex C (normative) CG multi-layered insulation products ..... 29

Annex D (informative) Additional properties ..... 31

Annex E (informative) Preparation of the test specimens to measure thermal conductivity..... 34

Annex ZA (informative)  $\text{A}_1$  Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation  $\text{A}_1$  ..... 36

Bibliography ..... 47

Tables

Table 1 — Dimensional stability under specified conditions..... 13

Table 2 — Levels for compressive strength ..... 14

Table 3 — Levels for bending strength ..... 15

Table 4 — Levels for deformation under point load..... 15

Table 5 — Test methods, test specimens and conditions..... 18

Table A.1 — Values for  $k$  for one sided 90 % tolerance interval with a confidence level of 90 %..... 24

Table B.1 — Minimum number of tests for  $\text{A}_1$  PTD  $\text{A}_1$  and minimum product testing frequencies ..... 25

Table B.2 — Minimum product testing frequencies for the reaction to fire characteristics ..... 27

Table D.1 — Test methods, test specimens, conditions and minimum testing frequencies..... 32

Table ZA.1 — Relevant clauses for factory made cellular glass and intended use..... 36

Table ZA.2 — Systems of AVCP ..... 38

Table ZA.3.1 — Assignment of AVCP tasks for factory made cellular glass products under system 1 for reaction to fire and system 3 (see Table ZA.2) ..... 38

Table ZA.3.2 — Assignment of AVCP tasks for factory made cellular glass products under system 3 (see Table ZA.2) ..... 40

საინფორმაციო ნაწილი. სრული ტექსტის სახსრავად შეიძინეთ სტანდარტი.

**Table ZA.3.3 — Assignment of AVCP tasks for factory made cellular glass products under combined system 4 for reaction to fire and system 3 (see Table ZA.2) .....41**

**Figures**

**Figure ZA.1 — Example CE marking information of products under AVCP system 1 and system 3.....46**

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

## Foreword

This document (EN 13167:2012+A1:2015) has been prepared by Technical Committee CEN/TC 88 “Thermal insulating materials and products”, the secretariat of which is held by DIN.

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 August 2015, and conflicting national standards shall be withdrawn at the latest by November 2016.

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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

**A1** For relationship with EU Construction Products Regulation (CPR), see informative Annex ZA, which is an integral part of this standard. **A1**

This document supersedes **A1** EN 13167:2012 **A1**.

This document includes Amendment 1 approved by CEN on 2014-12-15.

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


Compared with EN 13167:2008, the main changes are:

- a) better harmonisation between the individual standards of the package (EN 13162 to EN 13171) on definitions, requirements, classes and levels;
- b) new normative annex on multi-layered products;
- c) changes on some editorial and technical content and addition of information on some specific items, such as point load (move towards 4.3); compressive strength (additional levels); bending strength (additional levels);
- d) addition of links to EN 15715, *Thermal insulation products — Instructions for mounting and fixing for reaction to fire testing — Factory made products*;
- e) changes to the Annex ZA.

**A1** Amendment 1 modifies EN 13167:2012 identifying those clauses of the standard which are needed for the compliance of the European Standard with the Construction Products Regulation (CPR).

This amendment introduces

- f) an addition to the foreword;
- g) an addition in 3.2;
- h) a new subclause 4.3.12;
- i) modification of Clause 7;
- j) modification of Clause 8;

- k) modification of Annex B;
- l) a new Annex ZA. 

This standard is one of a series of standards for thermal insulation products used in buildings but this standard may be used in other areas where appropriate.

In pursuance of Resolution BT 20/1993 revised, CEN/TC 88 have proposed defining the standards listed below as a package of documents.

The package of standards comprises the following group of interrelated standards for the specifications of factory made thermal insulation products, all of which come within the scope of CEN/TC 88:

EN 13162, *Thermal insulation products for buildings — Factory made mineral wool (MW) products — Specification*

EN 13163, *Thermal insulation products for buildings — Factory made expanded polystyrene (EPS) products — Specification*

EN 13164, *Thermal insulation products for buildings — Factory made extruded polystyrene foam (XPS) products — Specification*

EN 13165, *Thermal insulation products for buildings — Factory made rigid polyurethane foam (PU) products — Specification*

EN 13166, *Thermal insulation products for buildings — Factory made phenolic foam (PF) products — Specification*

EN 13167, *Thermal insulation products for buildings — Factory made cellular glass (CG) products — Specification*

EN 13168, *Thermal insulation products for buildings — Factory made wood wool (WW) products — Specification*

EN 13169, *Thermal insulation products for buildings — Factory made expanded perlite board (EPB) products — Specification*

EN 13170, *Thermal insulation products for buildings — Factory made products of expanded cork (ICB) — Specification*

EN 13171, *Thermal insulation products for buildings — Factory made wood fibre (WF) products — Specification*

The reduction in energy used and emissions produced during the installed life of insulation products exceeds by far the energy used and emissions made during the production and disposal processes.

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.