# Tööstuslikult valmistatud kipsplaadist paneelid kärgkartongist südamikuga. Määratlused, nõuded ja katsemeetodid

Prefabricated gypsum plasterboard panels with a cellular paperboard core - Definitions, requirements and test methods



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13915:2007 sisaldab Euroopa standardi EN 13915:2007 ingliskeelset teksti.

Käesolev dokument on jõustatud 22.11.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 13915:2007 consists of the English text of the European standard EN 13915:2007.

This document is endorsed on 22.11.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

#### Käsitlusala:

This European Standard specifies the characteristics and performance of prefabricated panels made of gypsum plasterboard facings complying with EN 520 and a cellular paperboard core intended to be used as a lightweight partition, lining and encasement for general use in buildings. This standard covers the following characteristics: reaction to fire, water vapour permeability, flexural strength (breaking load) and thermal resistance to be measured according to the corresponding European test methods.

#### Scope:

This European Standard specifies the characteristics and performance of prefabricated panels made of gypsum plasterboard facings complying with EN 520 and a cellular paperboard core intended to be used as a lightweight partition, lining and encasement for general use in buildings. This standard covers the following characteristics: reaction to fire, water vapour permeability, flexural strength (breaking load) and thermal resistance to be measured according to the corresponding European test methods.

ICS 91.100.10

Võtmesõnad:

### EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

EN 13915

September 2007

ICS 91,100,10

#### **English Version**

## Prefabricated gypsum plasterboard panels with a cellular paperboard core - Definitions, requirements and test methods

Panneaux de cloison préfabriqués en plaques de plâtre à âme cellulaire en carton - Définitions, prescriptions et méthodes d'essai Gipsplatten-Wandbaufertigtafeln mit einem Kartonwabenkern - Begriffe, Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 9 August 2007.

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 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 Management Centre has the same status as the official versions.

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



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

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#### **Foreword**

This document (EN 13915:2007) has been prepared by Technical Committee CEN/TC 241 "Gypsum and gypsum based 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 March 2008, and conflicting national standards shall be withdrawn at the latest by June 2009.

This European standard includes:

- informative Annex A concerning sampling procedure for testing;
- normative Annex B concerning SBI mounting and fixing for prefabricated panels made of plasterboard facings and a cellular paperboard core.

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.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

#### Introduction

Figure 1 and Figure 2 show the relationship between this standard and the package of standards prepared to support the families of gypsum and ancillary products.

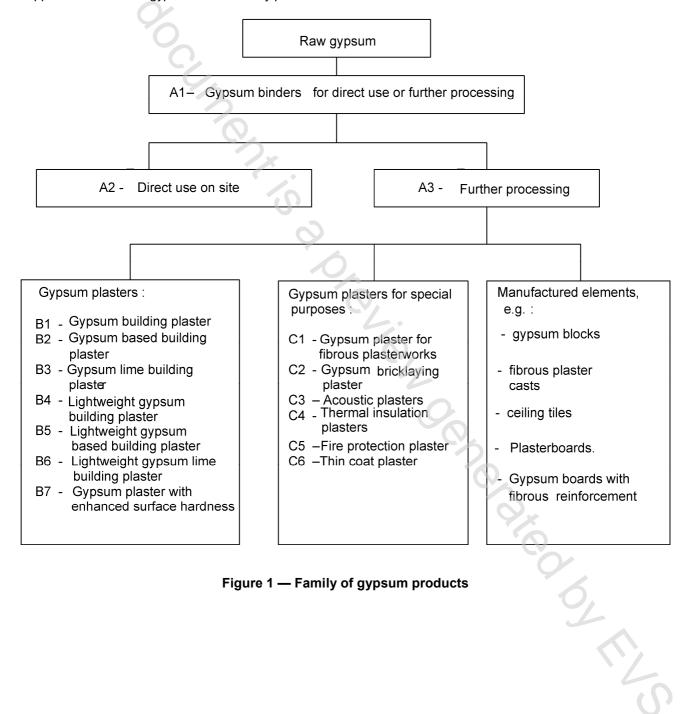


Figure 1 — Family of gypsum products

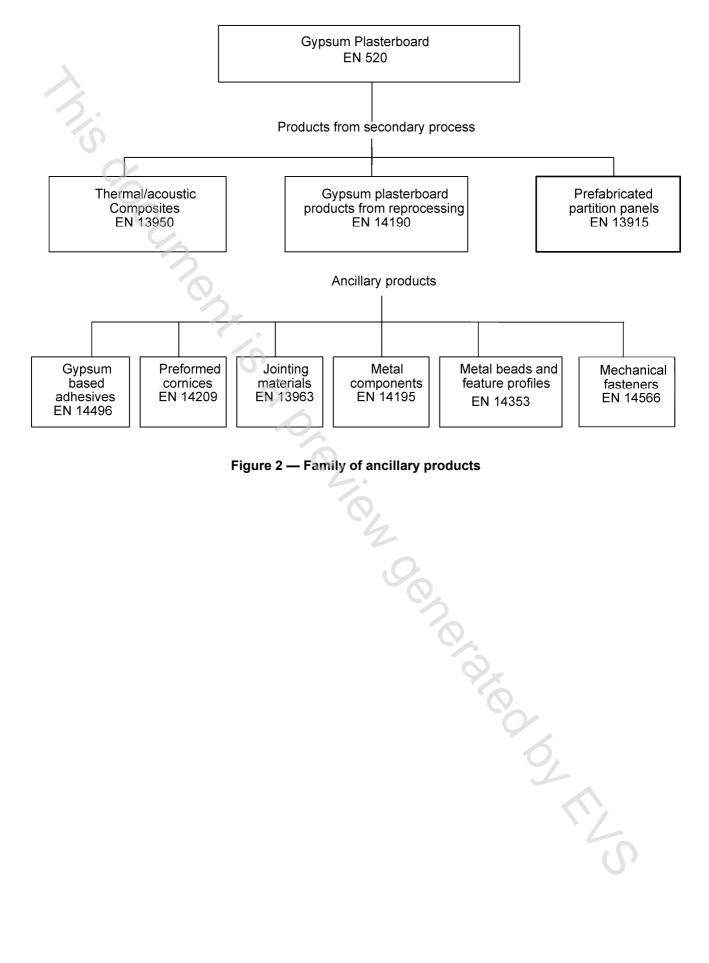


Figure 2 — Family of ancillary products

#### 1 Scope

This European Standard specifies the characteristics and performance of prefabricated panels made of gypsum plasterboard facings complying with EN 520 and a cellular paperboard core intended to be used as a lightweight partition, lining and encasement for general use in buildings.

This standard covers the following characteristics: reaction to fire, water vapour permeability, flexural strength (breaking load) and thermal resistance to be measured according to the corresponding European test methods.

This Standard covers only prefabricated panels installed so that the core is not exposed.

The following performance characteristics are linked to systems assembled with prefabricated panels made of gypsum plasterboard facings and a cellular paperboard core: shear strength, fire resistance, direct airborne sound insulation, acoustic absorption and air permeability to be measured according to the corresponding European test methods. If required, tests should be done on assembled systems simulating the end use conditions.

This document covers also additional technical characteristics that are of importance for the use and acceptance of the product by the Building Industry.

It provides for the evaluation of conformity of the products to this document.

#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 520, Gypsum plasterboards — Definitions, requirements and test methods

EN 12524, Building materials and products — Hygrothermal properties — Tabulated design values

EN 12664, Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Dry and moist products of medium and low thermal resistance

EN 13501-1, Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests

EN 13501-2, Fire classification of construction products and building elements — Part 2: Classification using data from fire resistance tests, excluding ventilation services

EN 13823, Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item

EN 13963, Jointing materials for gypsum plasterboards — Definitions, requirements and test methods

EN ISO 140-3, Acoustics — Measurement of sound insulation in buildings and of building elements — Part 3: Laboratory measurements of airborne sound insulation of building elements (ISO 140-3:1995)

EN ISO 354, Acoustics — Measurement of sound absorption in a reverberation room (ISO 354:2003)

EN ISO 717-1, Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation (ISO 717-1:1996)

EN ISO 9001:2000, Quality management systems — Requirements (ISO 9001:2000)

EN ISO 11925-2, Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test (ISO 11925-2:2002)

EN ISO 12572, Hygrothermal performance of building materials and products — Determination of water vapour transmission properties (ISO 12572:2001)

ISO 7892, Vertical building elements — Impact resistance tests — Impact bodies and general test procedures.

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

#### prefabricated gypsum plasterboard panel

panel that is made up of two gypsum plasterboards according to EN 520, possibly up to 15 mm thick, bonded to both sides of a cellular paperboard core

NOTE It is commonly named "panel" in this standard.

#### 3.2

#### panel facing

exposed surface of plasterboard to receive either coating or finishing

#### 3.3

#### length

dimension of the panel parallel to the paper covered edges, measured on the panel facing

#### 3.4

#### width

dimension of the panel perpendicular to the paper covered edges, measured on the panel facing

#### 3.5

#### thickness

distance between the panel facings

#### 4 Requirements

#### 4.1 Fire behaviour

#### 4.1.1 Reaction to fire

When subject to regulatory requirements, prefabricated gypsum plasterboard panels shall be tested and classified in accordance with EN 13501-1.

Prefabricated gypsum plasterboard panels tested according to EN 13823 (SBI test) shall be mounted and fixed in accordance with Annex B or when the producer wishes to claim performance for a specific intended use, the mounting and fixing shall be representative of that intended use.

Prefabricated gypsum plasterboard panels tested according to EN ISO 11925-2 (Ignitability) shall be tested with surface attack only due to the fact that edge attack cannot occur in end use conditions.

#### 4.1.2 Fire resistance

NOTE Resistance to fire is a characteristic dependent on an assembled system and not of the product in isolation.

When required, the fire resistance of a system including prefabricated gypsum plasterboard panels shall be classified according to EN 13501-2.