Gypsum boards with fibrous reinforcement - Definitions, requirements and test methods - Part 2: Gypsum fibre boards

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15283-2:2008 sisaldab Euroopa standardi EN 15283-2:2008 ingliskeelset teksti.	This Estonian standard EVS-EN 15283-2:2008 consists of the English text of the European standard EN 15283-2:2008.
Standard on kinnitatud Eesti Standardikeskuse 24.04.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 24.04.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 20.02.2008.	Date of Availability of the European standard text 20.02.2008.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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English Version

Gypsum boards with fibrous reinforcement - Definitions, requirements and test methods - Part 2: Gypsum fibre boards

Plaques de plâtre armées de fibres - Définitions, spécifications et méthodes d'essai - Partie 2: Plaques de plâtre fibrées

Faserverstärkte Gipsplatten - Begriffe, Anforderungen und Prüfverfahren - Teil 2: Gipsfaserplatten

This European Standard was approved by CEN on 28 December 2007.

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Foreword

This document (EN 15283-2:2008) 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of an identical text or by endorsement, at the latest by August 2008, and conflicting national standards shall be withdrawn at the latest by November 2009.

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 standard includes two parts:

— *Part 1: Gypsum boards with mat reinforcement*

— *Part 2: Gypsum fibre boards*

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 89/106.

For relationship with EU Directive(s) see informative Annex ZA which is an integral part of this document.

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.

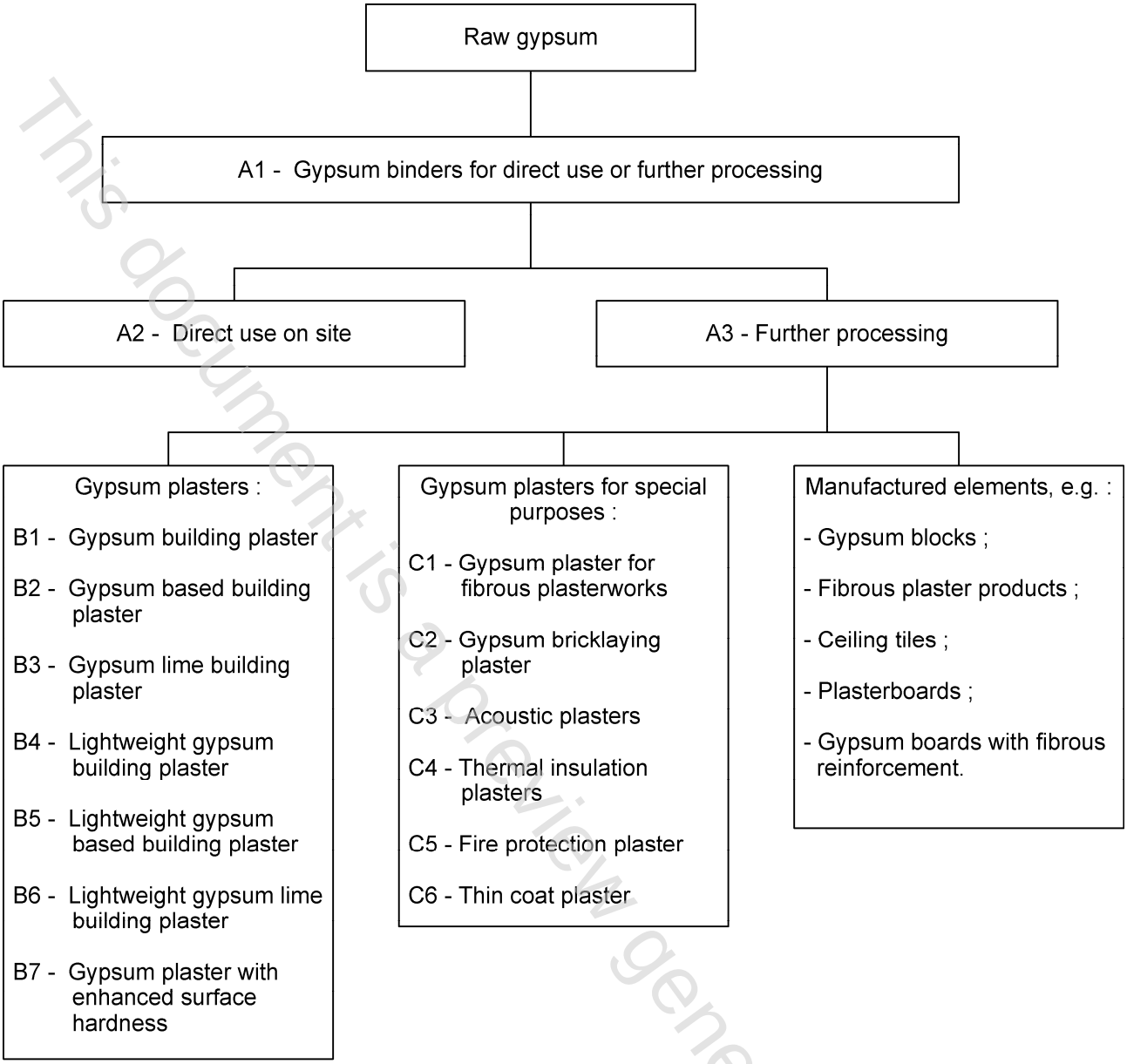

Diagram 1 — Families of gypsum products

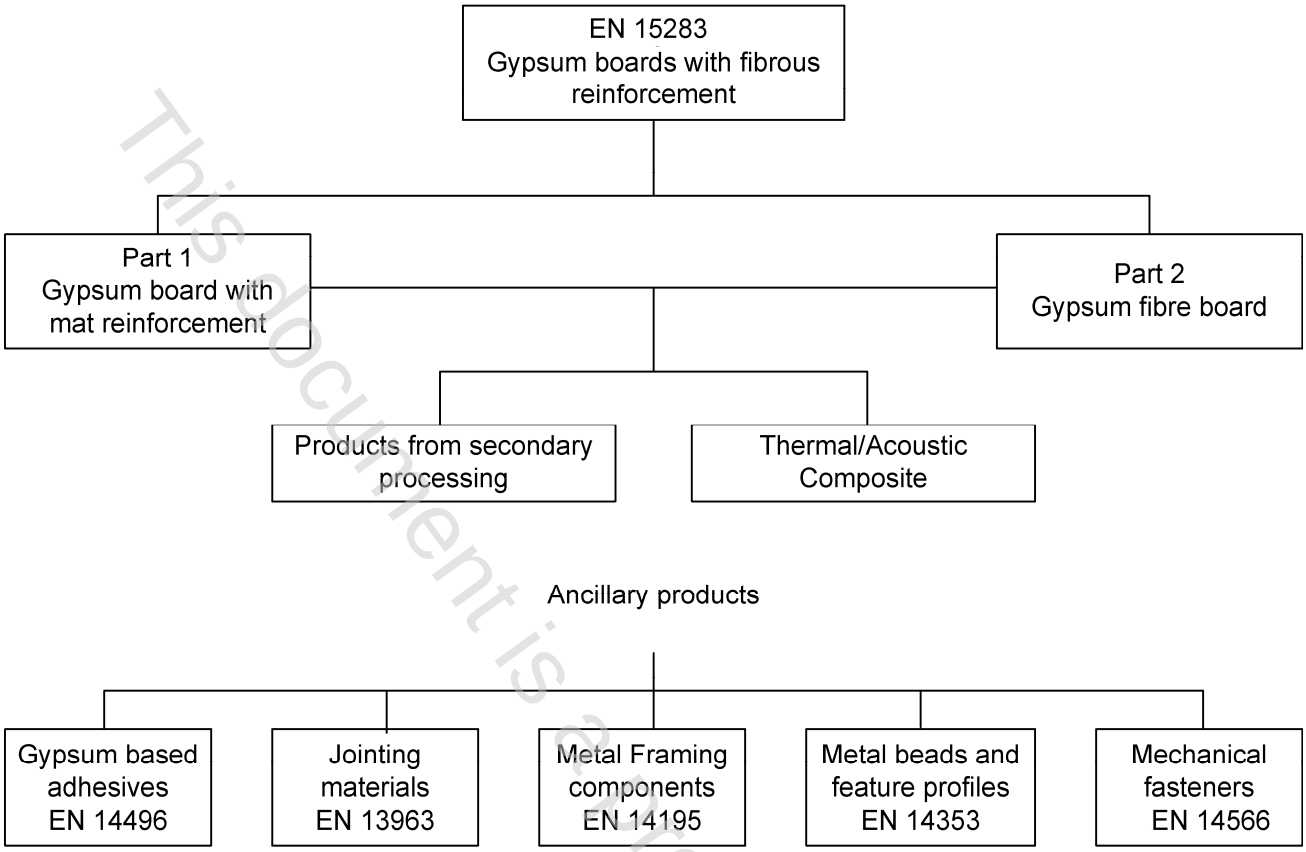

Diagram 2 — Family of ancillary products

Introduction

Gypsum fibre boards are composed of set gypsum plaster core reinforced with fibres which may be inorganic and/or organic, dispersed in the core to form flat rectangular boards. Admixtures and fillers may also be present. They are usually continuously produced on an industrial scale.

The properties of gypsum fibre boards make them particularly suitable for use in situations where there are requirements for fire protection, sound, thermal insulation or shear strength.

Gypsum fibre boards may be fixed by various methods e.g. nailing, screwing, stapling or sticking with gypsum based or other adhesives. They may also be inserted in a suspended ceiling system or laid in floor constructions.

Gypsum fibre boards may be finished with direct surface decoration or gypsum plaster.

They may be further processed into a range of other products.

1 Scope

This European Standard specifies the characteristics and performance of gypsum fibre boards intended to be used in building construction works including those intended for secondary manufacturing operations. It includes boards designed to receive either direct surface decoration or gypsum plaster.

Gypsum fibre boards are selected for use according to their type, size, thickness and edge profile. The boards may be used for example, to provide dry lining finishes to walls, to fixed and suspended ceilings, to partitions, or as cladding to structural columns and beams. Other uses may be for floors and sheathing applications.

This European Standard covers the following product performance characteristics: reaction to fire, water vapour permeability, flexural strength, and thermal resistance.

The following performance characteristics are linked to systems assembled with gypsum fibre boards: shear strength, fire resistance, impact resistance, direct airborne sound insulation, acoustic absorption. If required, tests have to be done according to the corresponding European test methods on assembled systems simulating the end use conditions.

This European Standard also covers additional technical characteristics that are of importance for the use and acceptance of the product and the reference tests for these characteristics.

It provides for evaluation of conformity of the product to this EN.

This European Standard does not cover gypsum fibre boards that have been subject to any secondary manufacturing operations (e.g. insulating composite panels, boards with thin lamination etc.).

Products covered by EN 520 or EN 13815 are excluded.

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 338:2003, *Structural timber – Strength classes*

EN 12524, *Building material 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 14195, *Metal framing components for gypsum plasterboard systems — Definitions, requirements and test methods*

EN 20535, *Paper and board — Determination of water absorptiveness — Cobb method (ISO 535:1991)*

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 354:1985)*

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

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
gypsum fibre boards
gypsum fibre boards are composed of set gypsum plaster reinforced with dispersed fibres, which may be inorganic and/or organic, to form flat rectangular boards. They may contain additives and/or fillers to impart additional properties. The surfaces may vary according to the use. The edges and the ends may be profiled to suit the application.

Gypsum fibre boards are usually continuously produced on an industrial scale.

For the purposes of identification these boards receive the designation GF

3.2 Additional features of gypsum fibre boards

3.2.1
gypsum fibre boards with reduced water absorption rate
gypsum fibre boards may have additives to reduce the water absorption rate which make them suitable for special applications in which reduced water absorption properties are required to improve the performance of the board. For the purposes of identification these boards receive the additional designation GF-H

3.2.2
gypsum fibre boards with reduced surface water absorption
gypsum fibre boards may have additives to reduce the surface water absorption which make them suitable for special applications in which reduced water absorption properties are required to improve the performance of the board. For the purposes of identification, these boards receive the additional designation GF-W1, GF-W2 with different surface water absorption performance

3.2.3
gypsum fibre boards with enhanced density
boards may have enhanced density for special applications. For the purposes of identification these boards receive the additional designation GF-D, in accordance with their density

3.2.4
gypsum fibre boards with enhanced surface hardness
boards may have enhanced surface hardness for special applications. For the purposes of identification these boards receive the additional designation GF-I