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Gipsskivor – Produkter förädlade genom tillskärning, profilering, laminering och liknande – Definitioner, krav och provningsmetoder

Gypsum board products from reprocessing – Definitions, requirements and test methods

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The European Standard EN 14190:2014 has the status of a Swedish Standard. This document contains the official version of EN 14190:2014.

This standard supersedes the Swedish Standard SS-EN 14190:2005, edition 1.

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EUROPEAN STANDARD

EN 14190

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2014

ICS 01.040.91; 91.100.10

Supersedes EN 14190:2005

English Version

Gypsum board products from reprocessing - Definitions, requirements and test methods

Produits de transformation secondaire de plaques de plâtre
- Définitions, spécifications et méthodes d'essai

Gipsplatten-Produkte aus der Weiterverarbeitung - Begriffe,
Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 22 May 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.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Contents		Page
Foreword.....		4
1	Scope	5
2	Normative references	5
3	Terms and definitions, symbols and abbreviations.....	6
3.1	Terms and definitions	6
3.2	Symbols and abbreviations	7
4	Requirements	7
4.1	Mechanical characteristics	7
4.1.1	Flexural strength (expressed as flexural breaking load).....	7
4.1.2	Stability of ceiling elements	7
4.1.3	Shear strength (strength of board/substructure connection).....	7
4.1.4	Impact resistance.....	7
4.2	Fire behaviour	8
4.2.1	Reaction to fire.....	8
4.2.2	Resistance to fire	8
4.3	Water vapour permeability (expressed as water vapour resistance factor).....	8
4.4	Acoustic properties	8
4.4.1	Direct airborne sound insulation	8
4.4.2	Acoustic absorption	8
4.4.3	Impact sound insulation	8
4.5	Thermal resistance (expressed as thermal conductivity)	9
4.6	Dangerous substances	9
4.7	Dimensions and tolerances	9
4.8	Thermal emissivity.....	9
4.9	X-ray protection	9
5	Test methods.....	9
5.1	Sampling.....	9
5.2	Stability determination	10
5.2.1	Principle.....	10
5.2.2	Apparatus	10
5.2.3	Procedure	10
5.2.4	Expression of results	10
5.3	Determination of thermal emissivity.....	10
5.3.1	Principle.....	10
5.3.2	Apparatus	10
5.3.3	Procedure	11
5.3.4	Expression of results	11
6	Assessment and verification of constancy of performance - AVCP	11
6.1	General.....	11
6.2	Type testing.....	12
6.2.1	General.....	12
6.2.2	Determination of the product type	12
6.2.3	Further type testing	12
6.3	Factory production control (FPC)	12
6.3.1	General.....	12
6.3.2	Personnel.....	13
6.3.3	Equipment	13

6.3.4	Raw materials and components	13
6.3.5	Product testing and evaluation	13
6.3.6	Traceability and marking	13
6.3.7	Non-complying products	13
6.3.8	Corrective action	14
6.3.9	Other test methods	14
7	Designation of gypsum board products from reprocessing	14
8	Marking, labelling and packaging	14
Annex A (informative)	Sampling procedure for testing	15
A.1	General	15
A.2	Sampling procedure	15
A.2.1	General	15
A.2.2	Random sampling	15
A.2.3	Representative sampling	15
A.2.3.1	General	15
A.2.3.2	Sampling from a stack	15
A.2.3.3	Sampling from a consignment formed of banded or wrapped packs	16
Annex B (informative)	Reprocessing operations	17
Annex C (normative)	Mounting and fixing in the test according to EN 13823 (SBI test) and related information	18
C.1	General	18
C.2	Products which have only been changed by mechanical processes to alter their shape or dimensions	18
C.3	Products which are formed by adhesion of another material (or board) to the surface of the board	18
C.4	Mounting and fixing for products which are formed by operations other than those listed in C.2 and C.3 above	18
Annex ZA (informative)	Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation	21
ZA.1	Scope and relevant characteristics	21
ZA.2	Procedure for AVCP of gypsum board products from reprocessing	22
ZA.2.1	Systems of AVCP	22
ZA.2.2	Declaration of performance (DoP)	26
ZA.2.2.1	General	26
ZA.2.2.2	Content	26
ZA.2.2.3	Example of DoP	27
ZA.3	CE marking and labelling	29
Bibliography	31

Foreword

This document (EN 14190:2014) 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 January 2015 and conflicting national standards shall be withdrawn at the latest by April 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 supersedes EN 14190:2005.

The main technical changes that have been made in this new edition of EN 14190 are the following:

- a) Normative references have been updated;
- b) scope has been enlarged to include boards according to EN 520, EN 15283-1 and EN 15283-2;
- c) 3.2 “Symbols and abbreviations” has been introduced;
- d) Annex C (SBI test) and related information concerning the methods for processing have been supplemented;
- e) Annex ZA and Clause 6 have been revised to be in line with the Construction Products Regulation (CPR)
- f) document has been editorially revised.

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 Regulation (EU) No. 305/2011.

For relationship with Regulation (EU) No. 305/2011, 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, 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.

1 Scope

This European Standard specifies the characteristics and performance of products which have been produced by reprocessing gypsum boards manufactured according to EN 520, EN 15283-1 and EN 15283-2. Reprocessing may include cutting, perforating, edge profiling, decorating and laminating membranes of other materials for functional or decorative purposes, attaching fixings including supports e.g. for partitions. Examples of reprocessing operations are given in Annex B.

The products are intended for use in wall, ceiling and floor applications, where they may be fixed directly to the background, or they are used in systems assembled in conjunction with the structure to form separate or suspended linings. The products can be customized to fit the intended application offering a wide range of aesthetic, functional and decorative solutions of modular or non-modular design.

This European Standard does not cover gypsum board thermal/acoustic insulation composite panels according to EN 13950 and prefabricated gypsum board panels with a cellular paperboard core according to EN 13915.

2 Normative references

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

EN 520:2004+A1:2009, *Gypsum plasterboards — Definitions, requirements and test methods*

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 test 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 15283-1: 2008+A1:2009, *Gypsum boards with fibrous reinforcement — Definitions, requirements and test methods — Part 1: Gypsum boards with mat reinforcement*

EN 15283-2: 2008+A1:2009, *Gypsum boards with fibrous reinforcement — Definitions, requirements and test methods — Part 2: Gypsum fibre boards*

EN 61331-1, *Protective devices against diagnostic medical X-radiation — Part 1: Determination of attenuation properties of materials (IEC 61331-1)*

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

EN ISO 6946, *Building components and building elements — Thermal resistance and thermal transmittance — Calculation method (ISO 6946)*

EN ISO 10140 (all parts), *Acoustics — Laboratory measurement of sound insulation of building elements (ISO 10140)*

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

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

3 Terms and definitions, symbols and abbreviations

3.1 Terms and definitions

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

3.1.1

face

surface intended to be exposed

3.1.2

back

surface intended to be concealed

3.1.3

perforations

holes of constant or varying shape and size

3.1.4

thin laminations

material applied to one or more surfaces to impart decoration or functional properties

3.1.5

floor elements

construction of 2 or more boards stuck together to provide profiled edges. Suitable single boards of adequate thickness and edge configuration may also comply

Note 1 to entry: Floor elements may include thermal and impact sound insulation.

3.1.6

foldable elements

elements formed from boards, that have previously been milled to provide inclined channels through their thickness, to allow them to be folded

3.1.7

arch elements

board preformed into curved elements, having a range of radii, size and shape, in single boards and multi-layer laminates

Note 1 to entry: The edges may be flush or staggered, inside or outside, to requirements.

3.1.8

integral fixing

component attached, usually to the back of the unit, to provide support

Note 1 to entry: Alternatively, the edges of the unit may be profiled.

3.2 Symbols and abbreviations

Table 1 — Symbols and abbreviations

Requirement	Sub-clause	Symbol or abbreviation
Flexural strength	4.1.1	F
Stability of ceiling elements	4.1.2	↓
Shear strength per fastener	4.1.3	↑↓
Reaction to fire	4.2.1	R2F
Water vapour resistance factor	4.3	μ
Impact resistance	4.1.4	→I
Airborne sound insulation	4.4.1	R
Acoustic absorption	4.4.2	α
Thermal conductivity	4.5	λ
Dangerous substances	4.6	DS
See manufacturer's literature		www.manufacturers_internet_address.com

4 Requirements

4.1 Mechanical characteristics

4.1.1 Flexural strength (expressed as flexural breaking load)

All gypsum boards used to manufacture the products described in this document shall meet the breaking load requirements given in the relevant standards.

4.1.2 Stability of ceiling elements

When the products from reprocessing are self-supported elements, incorporating integral fixings the load supported by the product shall be at least 5 times the dead load of the product.

All three samples shall pass the test in accordance with 5.2.

4.1.3 Shear strength (strength of board/substructure connection)

When the intended use of the products from reprocessing is stiffening timber framed building assemblies (i.e. walls, roof truss structures etc.) the conventional shear strength of the product shall be determined in accordance with the test method described in the relevant standards EN 520, EN 15283-1 and EN 15283-2.

When the secondary processing does not lead to a loss of strength, the shear strength of the gypsum board provided by the manufacturer may be used.

4.1.4 Impact resistance

NOTE Impact resistance is a characteristic dependent on an assembled system and not of the product in isolation.

When required, the impact resistance of a system including gypsum board shall be determined in accordance with ISO 7892.