

Kompozitné panely zo sadrokartónových dosiek na tepelnú a zvukovú izoláciu. Definície, požiadavky a skúšobné metódy.

STN EN 13950

72 3614

Gypsum board thermal/acoustic insulation composite panels - Definitions, requirements and test methods

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/15

Obsahuje: EN 13950:2014

Oznámením tejto normy sa od 01.05.2016 ruší STN EN 13950 (72 3614) z júla 2006 STN EN 13950: 2015

## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 13950

July 2014

ICS 91.100.10; 91.100.60

Supersedes EN 13950:2005

#### **English Version**

# Gypsum board thermal/acoustic insulation composite panels - Definitions, requirements and test methods

Complexes d'isolation thermique/acoustique en plaques de plâtre et isolant - Définitions, spécifications et méthodes d'essai

Gips-Verbundplatten zur Wärme- und Schalldämmung -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.

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

Foreword4			
1	Scope	5	
2	Normative references	5	
3	Terms, definitions, symbols, abbreviations and classification	6	
3.1	Terms and definitions of the product	6	
3.2	General terms	6	
3.3	Symbols and abbreviations	7	
3.4	Classification	7	
4	Requirements		
4.1	General		
4.2	Fire behaviour		
4.2.1	Reaction to fire		
4.2.2	Fire resistance	8	
4.3	Water vapour permeability (expressed as water vapour resistance factor)		
4.4	Flexural strength	8	
4.5	Impact resistance		
4.6	Direct airborne sound insulation	8	
4.7	Acoustic absorption	8	
4.8	Thermal resistance of the panel		
4.9	Dimensions and tolerances		
4.10	Offset		
4.11	Flatness of the composite		
4.12	Adhesion/cohesion of the insulating material		
4.13	Dangerous substances		
5	Test methods	10	
5.1	Sampling		
5.2	Dimensional measurements		
5.2.1	Thickness		
5.3	Determination of the offset		
5.3.1	Principle		
5.3.1	Apparatus		
5.3.2 5.3.3			
5.3.4	Procedure		
5.3.4 5.4	Expression of results		
-	Determination of the adhesion/cohesion of the insulating material		
5.4.1	Principle		
5.4.2	Apparatus		
5.4.3	Procedure		
5.4.4	Expression of results		
5.5	Determination of the flatness of the composite		
5.5.1	Principle		
5.5.2	Apparatus and specimens		
5.5.3	Procedure		
5.5.4	Expression of results		
6	Assessment and verification of constancy of performance - AVCP		
6.1	General		
6.2	Type testing		
6.2.1	General		
6.2.2	Determination of the product type	15	

6.2.3	Further type testing	
6.3	Factory production control (FPC)	
6.3.1	General	
6.3.2	Personnel	
6.3.3	Equipment	
6.3.4 6.3.5	Raw materials and components  Product testing and evaluation	
6.3.6	Traceability and marking	
6.3.7	Non-complying products	
6.3.8	Corrective action	
6.3.9	Other test methods	
7	Designation of composite panels	
8	Marking, labelling and packaging	
Annex	A (informative) Sampling procedure for testing	
<b>A</b> .1	General	
A.2	Sampling procedure	19
A.2.1	General	19
A.2.2	Random sampling	19
A.2.3	Representative sampling	19
A.2.3.1	General	19
A.2.3.2	Sampling from a stack	19
A.2.3.3	Sampling from a consignment formed of banded or wrapped packs	20
Annex	B (normative) Mounting and fixing in the test according to EN 13823 (SBI test)	
B.1	Mounting and fixing of the composite panels	21
Annex	ZA (informative) Clauses of this European Standard addressing provisions of the EU Construction Products Regulation	23
ZA.1	Scope and relevant characteristics	23
ZA.2	Procedure for AVCP of gypsum board thermal/acoustic composite panels	24
ZA.2.1	Systems of AVCP	24
ZA.2.2	Declaration of performance (DoP)	26
ZA.2.2.	1 General	26
ZA.2.2.		
ZA.2.2.	•	
ZA.3	CE marking and labelling	
Bibliog	ıraphy	32

#### **Foreword**

This document (EN 13950:2014) 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 13950:2005.

The main technical changes that have been made in this new edition of EN 13950 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) new clause symbols, abbreviations and classification has been introduced;
- d) Annex ZA and Clause 6 have been revised to be in line with the Construction Products Regulation (CPR);
- e) 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 thermal/acoustic insulation composite panels made of an insulating material laminated to gypsum boards for which the main intended use is the internal insulation (thermal and/or acoustic) of walls. They are attached with adhesives or by mechanical fixings to vertical solid backgrounds and by mechanical fixings to wood or metal framing with the gypsum board face exposed. The method of fixing and jointing should ensure that the insulating material is not exposed in its normal application.

This European Standard covers the following performance characteristics: reaction to fire, fire resistance, water vapour permeability, flexural strength, impact resistance, direct airborne sound insulation and thermal resistance to be measured according to the corresponding European test methods.

It provides for the assessment and verification of constancy of performance of the products to this European Standard.

This European Standard covers also additional technical characteristics that are of importance for the use and acceptance of the product by the construction industry.

#### 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, Gypsum plasterboards — Definitions, requirements and test methods

EN 825:2013, Thermal insulating products for building applications — Determination of flatness

EN 12667, Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Products of high and medium thermal resistance

EN 12939, Thermal performance of building materials and products — Determination of thermal resistance by means of guarded hot plate and heat flow meter methods — Thick products of high and medium 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 13963, Jointing materials for gypsum plasterboards — Definitions, requirements and test methods

EN 14496, Gypsum based adhesives for thermal/acoustic insulation composite panels and plasterboards — Definitions, requirements and test methods

EN 15283-1, Gypsum boards with fibrous reinforcement — Definitions, requirements and test methods — Part 1: Gypsum boards with mat reinforcement

EN 15283-2, Gypsum boards with fibrous reinforcement — Definitions, requirements and test methods — Part 2: Gypsum fibre boards

#### EN 13950:2014 (E)

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

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

EN ISO 10456, Building materials and products — Hygrothermal properties —Tabulated design values and procedures for determining declared and design thermal values (ISO 10456)

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

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

### koniec náhľadu – text ďalej pokračuje v platenej verzii STN