

# Teknisk specifikation

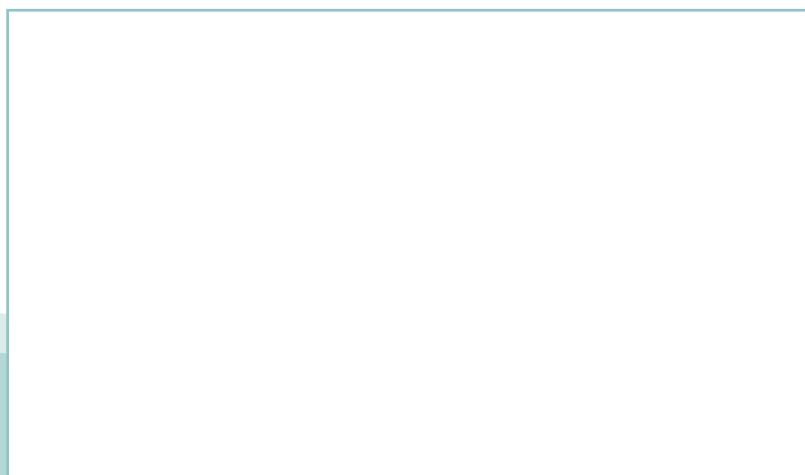
## SIS-CEN/TS 16526:2013

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**Sandwichmaterial för möbler (SWB-F) – Fabrikstillverkade produkter – Definition, klassificering och provningsmetoder för bestämning av karaktäristiska värden**

**Sandwich boards for furniture (SWB-F) – Factory made products – Definition, classification and test methods for determination of performance characteristics**



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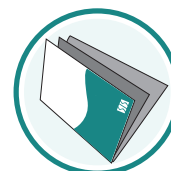
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TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
TECHNISCHE SPEZIFIKATION

**CEN/TS 16526**

November 2013

ICS 79.060.01

English Version

**Sandwich boards for furniture (SWB-F) - Factory made products  
- Definition, classification and test methods for determination of  
performance characteristics**

Panneaux sandwichés pour meubles (SWB-F) - Produits  
manufacturés - Définition, classification et méthodes d'essai  
pour la détermination des propriétés fonctionnelles

Sandwichplatten für Möbel (SWB-F) - Werkmäßig  
hergestellte Produkte - Definition, Klassifizierung und  
Prüfverfahren zur Bestimmung der Leistungseigenschaften

This Technical Specification (CEN/TS) was approved by CEN on 15 June 2013 for provisional application.

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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
<b>1 Scope .....</b>	<b>5</b>
<b>2 Normative references .....</b>	<b>5</b>
<b>3 Terms and definitions .....</b>	<b>6</b>
<b>4 Classification.....</b>	<b>9</b>
4.1 General.....	9
4.2 Classification according to board lay-up .....	9
4.3 Classification according to surface appearance.....	9
4.4 Classification according to conditions of use.....	9
4.5 Classification according to application purposes .....	9
<b>5 Symbols .....</b>	<b>10</b>
5.1 General.....	10
5.2 Symbols related to conditions of use.....	10
5.3 Symbols related to specific applications .....	10
5.4 Combination of symbols for identification of sandwich boards .....	10
<b>6 Conditioning and test conditions.....</b>	<b>10</b>
<b>7 Sampling, preparation and handling of test pieces and expression of test results .....</b>	<b>11</b>
7.1 General requirements.....	11
7.2 Testing of SWB-F in combination with auxiliary material(s) or after execution of additional processing steps .....	12
7.3 Test piece size.....	12
7.4 Determination of dimensions of test pieces .....	12
7.5 Expression of test results .....	13
<b>8 Test methods.....</b>	<b>13</b>
8.1 General guideline on the description and use of test methods.....	13
8.2 Physical properties.....	13
8.2.1 Determination of board dimensions .....	13
8.2.2 Moisture content .....	13
8.2.3 Apparent density and mass per unit area .....	14
8.2.4 Linear expansion due to changes in relative humidity.....	14
8.2.5 Behaviour under humidity variations in successive uniform climates.....	14
8.2.6 Moisture resistance .....	14
8.3 Mechanical properties.....	16
8.3.1 Flexural properties.....	16
8.3.2 Surface soundness.....	18
8.3.3 Compressive properties perpendicular to the plane of the board .....	18
8.3.4 Impact resistance.....	21
8.3.5 Shear strength.....	22
8.4 Properties relevant to processing and to performance in use .....	23
8.4.1 General.....	23
8.4.2 Integrity of board edges .....	24
8.4.3 Quality of edge banding .....	24
8.4.4 Load bearing capacity of fasteners .....	30
8.4.5 Shear resistance of a grooved board .....	33
8.5 Formaldehyde emission.....	34
<b>9 Marking .....</b>	<b>34</b>

<b>10</b>	<b>Test report</b> .....	<b>34</b>
	<b>Annex A</b> (normative) <b>Test methods</b> .....	<b>36</b>
	<b>Annex B</b> (informative) <b>Characterization of sandwich boards for different applications in furniture manufacturing</b> .....	<b>48</b>
	<b>Bibliography</b> .....	<b>51</b>

## Foreword

This document (CEN/TS 16526:2013) has been prepared by Technical Committee CEN/TC 112 “Wood-based panels”, the secretariat of which is held by DIN.

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## 1 Scope

This European Technical Specification defines terms, establishes a classification and specifies test methods for flat, factory made, non-structural, faced and unfaced sandwich boards for use in furniture manufacturing (SWB-F) for dry (service class 1) and humid conditions (service class 2). This European Technical Specification does not specify requirements.

Guidance is provided for the selection of board properties which are relevant for specific board applications.

This European Technical Specification is not applicable to products which are already covered by existing standards.

## 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 311, *Wood-based panels - Surface soundness - Test method*

EN 318, *Wood based panels - Determination of dimensional changes associated with changes in relative humidity*

EN 320, *Particleboards and fibreboards - Determination of resistance to axial withdrawal of screws*

EN 322, *Wood-based panels - Determination of moisture content*

EN 324-1, *Wood-based panels - Determination of dimensions of boards - Part 1: Determination of thickness, width and length*

EN 324-2, *Wood-based panels - Determination of dimensions of boards - Part 2: Determination of squareness and edge straightness*

EN 325, *Wood-based panels - Determination of dimensions of test pieces*

EN 326-1, *Wood-based panels - Sampling, cutting and inspection - Part 1: Sampling and cutting of test pieces and expression of test results*

EN 326-2, *Wood-based panels - Sampling, cutting and inspection - Part 2: Initial type testing and factory production control*

EN 326-3, *Wood-based panels - Sampling, cutting and inspection - Part 3: Inspection of an isolated lot of panels*

EN 438-2, *High-pressure decorative laminates (HPL) - Sheets based on thermosetting resins (usually called Laminates) - Part 2: Determination of properties*

EN 717-1, *Wood-based panels - Determination of formaldehyde release - Part 1: Formaldehyde emission by the chamber method*

EN 717-2, *Wood-based panels - Determination of formaldehyde release - Part 2: Formaldehyde release by the gas analysis method*

EN 789, *Timber structures - Test methods - Determination of mechanical properties of wood based panels*

EN 826, *Thermal insulating products for building applications - Determination of compression behaviour*

EN 950, *Door leaves - Determination of the resistance to hard body impact*

EN 1294, *Door leaves - Determination of the behaviour under humidity variations in successive uniform climates*

EN 1383, *Timber structures - Test methods - Pull through resistance of timber fasteners*

EN 1464, *Adhesives - Determination of peel resistance of adhesive bonds - Floating roller method*

EN 1995-1-1, *Eurocode 5: Design of timber structures - Part 1-1: General - Common rules and rules for buildings*

EN 14323:2004, *Wood-based panels - Melamine faced boards for interior uses - Test methods*

EN 14727:2005, *Laboratory furniture - Storage units for laboratories - Requirements and test methods*

DIN 53293, *Testing of sandwiches - Bending test*

### 3 Terms and definitions

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

#### 3.1

##### **sandwich board**

##### **SWB**

laminar composite product consisting of at least two skins positioned on either side of a core, which is firmly connected to the skins (e.g. by bonding, by core-generated adhesion) so that the three (or more) components act compositely when under load

Note 1 to entry: Wood or other lignocellulosic materials constitute at least one of the components.

#### 3.2

##### **skin**

flat sheet firmly connected to the core and designed to support in-plane tensile or compressive loads in a sandwich board

Note 1 to entry: Sheets used as skins can consist of composite materials.

Note 2 to entry: Skins in sandwich boards for furniture commonly consist of particleboard (EN 309), fibreboard (EN 316), plywood (EN 636) etc.

Note 3 to entry: If skins consist of or contain veneers (excluding decorative veneer applied to skins in faced SWB-F) or plywood, this SWB can be considered as a core or composite plywood as defined in EN 313–2. The corresponding standards can apply in particular, the requirements and test methods pertaining to the bonding quality.

#### 3.3

##### **core**

centrally positioned layer of material, generally low in density, which is bonded between two skins and is designed to support normal compressive and tensile loads and to transfer shear loads in a sandwich board

#### 3.4

##### **core material**

homogeneous or inhomogeneous material used in manufacturing the core

Note 1 to entry: Homogeneous and inhomogeneous core materials provide continuous and discontinuous supports of the skins, respectively. Homogeneous (e.g. balsa wood, foams) or inhomogeneous (e.g. honeycomb cores) core materials can be isotropic or anisotropic.

Note 2 to entry: Core materials in sandwich boards for furniture are commonly lightweight materials such as paper, metal or composite honeycomb, open and closed cell foam, corrugated material, bonded composite tubes, or naturally occurring materials such as balsa wood or lightweight (wood) fibre-based boards.

### 3.5

#### **homogenous material**

material in which on a macroscopic scale relevant properties are not a function of the position within the material itself but may be a function of such parameters as time, direction, temperature, etc.

### 3.6

#### **inhomogeneous material**

material, also often referred to as non-homogeneous or structured in which on a macroscopic scale relevant properties are a function of the position within the material itself and relevant properties may be a function of such parameters as time, direction, temperature, etc.

### 3.7

#### **isotropic**

exhibiting the same physical and mechanical properties along different axes

### 3.8

#### **anisotropic**

#### **not isotropic**

exhibiting different physical and mechanical properties along different axes

### 3.9

#### **x-axis**

in sandwich boards, an axis in the plane of the skins which is used as the 0 degree reference or major axis

Note 1 to entry: The board dimension in the direction of the x-axis is referred to as the length of the board.

### 3.10

#### **x-y plane**

in sandwich boards, the reference plane parallel to the plane of the skins

### 3.11

#### **y-axis**

in sandwich boards, the axis in the plane of the skins which is perpendicular to the x-axis and which is referred to as the minor axis

Note 1 to entry: The board dimension in the direction of the y-axis is referred to as the width of the board.

### 3.12

#### **z-axis**

in sandwich boards, the reference axis normal to the plane of the skins

Note 1 to entry: The board dimension in the direction of the z-axis is referred to as the thickness of the board.

### 3.13

#### **structural unit**

#### **SU**

entity which is repeated periodically in an inhomogeneous core material whose properties vary along the x- or y-axis of the sandwich board

Note 1 to entry: An example of a structural unit is a honeycomb cell in a honeycomb core or a single profile in a corrugated core.