

Dekoratiivsed kõrgsurvelaminaadid (HPL). Termoreaktiivsetel vaikudel põhinev lehtmaterjal (tavaliselt nimetatakse laminaatideks). Osa 7: Kompaktsed laminaat- ja HPL-komposiitpaneelid sise- ja välisseinte ja lagede viimistluseks

High-pressure decorative laminates (HPL) - Sheets based on thermosetting resins (usually called laminates) - Part 7: Compact laminate and HPL composite panels for internal and external wall and ceiling finishes

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 438-7:2005 sisaldab Euroopa standardi EN 438-7:2005 ingliskeelset teksti. Käesolev dokument on jõustatud 30.03.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 438-7:2005 consists of the English text of the European standard EN 438-7:2005. This document is endorsed on 30.03.2005 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 health, safety and energy saving requirements for : - Compact laminate panels/sidings for interior wall and ceiling finishes (including suspended ceilings); - HPL composite panels/sidings for interior wall and ceiling finishes (including suspended ceilings); - Compact laminate panels/sidings for exterior wall and ceiling finishes (including suspended ceilings); - HPL composite panels/sidings for exterior wall and ceiling finishes (including suspended ceilings)	Scope: This European Standard specifies the health, safety and energy saving requirements for : - Compact laminate panels/sidings for interior wall and ceiling finishes (including suspended ceilings); - HPL composite panels/sidings for interior wall and ceiling finishes (including suspended ceilings); - Compact laminate panels/sidings for exterior wall and ceiling finishes (including suspended ceilings); - HPL composite panels/sidings for exterior wall and ceiling finishes (including suspended ceilings)
---	---

ICS 83.140.20

Võtmesõnad: classifications, fibreboards, multilayer system, panels, planks, plastic sheets, plastics, production control, properties, quality assurance, resins, sheets, specification, specification (approval), specifications, testing, thermosetting, wall coverings

English version

**High-pressure decorative laminates (HPL) - Sheets based on
thermosetting resins (Usually called Laminates) - Part 7:
Compact laminate and HPL composite panels for internal and
external wall and ceiling finishes**

Stratifiés décoratifs haute pression (HPL) - Plaques à base
de résines thermodurcissables (communément appelées
stratifiés) - Partie 7 : Panneaux stratifiés compacts et
composites HPL pour finitions des murs et plafonds
intérieurs et extérieurs

Dekorative Hochdruck-Schichtpressstoffplatten (HPL) -
Platten auf Basis härter Harze (Schichtpressstoffe) -
Teil 7: Kompaktplatten und HPL-Mehrschicht-
Verbundplatten für Wand- und Deckenbekleidungen für
Innen- und Außenanwendung

This European Standard was approved by CEN on 12 August 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

	page
Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 Performance characteristics	6
4.1 Conditioning of specimens	6
4.2 Reaction to fire	6
4.3 Fire resistance	7
4.4 Water vapour permeability	7
4.5 Resistance to fixings	8
4.6 Direct airborne sound insulation	8
4.7 Bonding strength	9
4.8 Flexural tensile strength	9
4.9 Thermal resistance/conductivity	9
4.10 Release of dangerous substances	9
4.11 Additional characteristics for internal use	10
4.12 Additional characteristics for external use	10
4.13 Durability	11
5 Evaluation of conformity	11
5.1 General	11
5.2 Type testing	11
5.3 Factory production control (FPC)	12
6 Marking and labelling	13
Annex A (informative) Other European Standards for HPL products	14
Annex B (normative) Specimen mounting details for SBI fire testing	15
Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives	22
Bibliography	32

Foreword

This document (EN 438-7:2005) has been prepared by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

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 July 2005, and conflicting national standards shall be withdrawn at the latest by July 2005.

This document supersedes EN 438-1:1991 and EN 438-2:1991.

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(s).

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

This European Standard is a revision of EN 438:1991 and consists of seven parts:

Part 1: *Introduction and general information;*

Part 2: *Determination of properties;*

Part 3: *Classification and specifications for laminates less than 2 mm thick intended for bonding to supporting substrates;*

Part 4: *Classification and specifications for Compact laminates of thickness 2 mm and greater;*

Part 5: *Classification and specifications for flooring grade laminates less than 2 mm thick intended for bonding to supporting substrates;*

Part 6: *Classification and specifications for Exterior-grade Compact laminates of thickness 2 mm and greater;*

Part 7: *Compact laminate and HPL composite panels for internal and external wall and ceiling finishes.*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This document specifies the health, safety and energy saving requirements for:

- Compact laminate panels/sidings for interior wall and ceiling finishes (including suspended ceilings);
- HPL composite panels/sidings for interior wall and ceiling finishes (including suspended ceilings);
- Compact laminate panels/sidings for exterior wall and ceiling finishes (including suspended ceilings);
- HPL composite panels/sidings for exterior wall and ceiling finishes (including suspended ceilings).

It also specifies methods for the evaluation of conformity of the product to the requirements, and includes requirements for marking. It covers only the HPL panels for non-structural applications, and does not cover fixing systems.

The products are intended for use as wall and ceiling finishes for internal and external applications according to the manufacturer's specifications.

The scope of this document does not cover:

- a) overlaid or veneered wood-based panels where the overlay/veneer is not HPL;
- b) HPL-surfaced wood-based panels intended for use as structural components. These products are covered by EN 13986 (wood-based panels for use in construction).

This document covers only characteristics related to health, safety and energy-saving. All other characteristics are covered in separate European Standards for HPL products (see Annex B).

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 438-1:2005, *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (Usually called Laminates) — Part 1: Introduction and general information.*

EN 438-2:2005, *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (Usually called Laminates) — Part 2: Determination of properties.*

EN 438-3, *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (Usually called Laminates) — Part 3: Classification and specifications for laminates less than 2 mm thick intended for bonding to supporting substrates.*

EN 438-4:2005, *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (Usually called Laminates) — Part 4: Classification and specifications for Compact laminates of thickness 2 mm and greater.*

EN 438-6:2005, *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (Usually called Laminates) — Part 6: Classification and specifications for Exterior-grade Compact laminates of thickness 2 mm and greater.*

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 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 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 13986, *Wood-based panels for use in construction — Characteristics, evaluation of conformity and marking.*

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 178, *Plastics — Determination of flexural properties (ISO 178:2001).*

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 1183-1:2004, *Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pycnometer method and titration method (ISO 1183-1:2004).*

EN ISO 11654, *Acoustics — Sound absorbers for use in buildings — Rating of sound absorption (ISO 11654:1997).*

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

ISO 13894-1:2000, *High-pressure decorative laminates — Composite elements — Part 1: Test methods.*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 438-1:2005 and the following apply

3.1

Compact laminate panel

panels of high-pressure laminate supplied in thicknesses of 2 mm and greater.

Panels may be supplied in the form of large sheets (i.e. the full manufactured size), or smaller cut-to-size panels or sidings

3.2

HPL composite panel

composite panel produced by adhesively bonding high-pressure decorative laminate sheet material to one or both sides of a substrate.

Panels may be supplied in the form of large sheets (i.e. the full manufactured size), or smaller cut-to-size panels or sidings

3.3

substrate of the composite panel

board to which the high-pressure decorative laminate is bonded.