
Dekoratívni visokotlačni laminati (HPL) - Plošče na osnovi duromernih smol (laminati) - 8. del: Razvrstitev in specifikacije laminatov s posebnimi vzorci

High-pressure decorative laminates (HPL) - Sheets based on thermosetting resins (usually called laminates) - Part 8: Classification and specifications for design laminates

Dekorative Hochdruck-Schichtpressstoffplatten (HPL) - Platten auf Basis härtbarer Harze (Schichtpressstoffe) - Teil 8: Klassifizierung und Spezifikationen für Design-Schichtpressstoffe

Stratifiés décoratifs haute pression (HPL) - Plaques à base de résines thermodurcissables (communément appelées stratifiés) - Partie 8 : Classification et spécifications relatives aux stratifiés à effets de surface spéciaux

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ICS:

83.140.20 Laminatne plošče Laminated sheets

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EUROPEAN STANDARD
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European foreword

This document (prEN 438-8:2026) has been prepared by Technical Committee CEN/TC 249 “Plastics”, the secretariat of which is held by SIS.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 438-8:2018.

prEN 438-8:2026 includes the following significant technical changes with respect to EN 438-8:2018:

- the test methods referenced have been updated as appropriate; the terms, definitions, symbols and abbreviations are aligned with the other parts of the EN 438 series published; the machined crosshead speed for the determination of the flexural characteristics, is the same of the one specified in EN 438-4:2016.
- updating terms and definitions;
- adding “L – laquered laminate to high-pressure decorative design laminate classification system”;
- adding 5.3.4 “Dimensional tolerance requirements for lacquered laminates”;
- adding 5.4.4 “General requirements for lacquered laminates”.

The EN 438 series, under the general title *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (usually called laminates)*, consists of the following 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;*
- *Part 8: Classification and specifications for design laminates;*
- *Part 9: Classification and specifications for alternative core laminates.*

prEN 438-8:2026 (E)

1 Scope

This document specifies performance requirements for design laminates intended for interior use with a design effect surface having a phenolic based core and a decorative surface not covered by EN 438-3 [1], EN 438-4 [2], EN 438-5 [3] and EN 438-6 [4].

This document is applicable to the following surface layer types:

- metal surfaces;
- wood veneer surfaces;
- pearlescent decor surfaces;
- lacquered surfaces.

NOTE For the test methods relevant to this document, see EN 438-2.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 438-2:2016+A1:2018, *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (usually called laminates) — Part 2: Determination of properties*

EN ISO 178, *Plastics — Determination of flexural properties (ISO 178)*

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

3 Terms, definitions and symbols

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 General terms

3.1.1

high-pressure decorative design laminate design laminate

HPL

sheet consisting of decorative design surface layer(s) and core layers bonded together by a high pressure process

3.1.2

surface layer

upper decorative layer consisting in one or more sheets of fibrous material (usually paper) impregnated with aminoplastic thermosetting resins (usually melamine based resins)

Note 1 to entry: The surface layers appear on one or both side(s) of the laminate(s). They are not necessarily treated with thermosetting resin. In case of one-sided laminates, the back of the sheet(s) can be made suitable for adhesive bonding to a substrate.

3.1.3

core layer

fibrous materials (usually paper) impregnated with thermosetting resins (usually phenolic based resins)

3.2 Types of high-pressure decorative design laminates

3.2.1

pearlescent laminate

design laminate, the surface layer of which consists of a pearlescent effect decorative paper, which is impregnated with aminoplastic thermosetting resins (usually melamine based resins)

Note 1 to entry: To achieve the optimum aesthetic effect from the pearlescent pigment a protective melamine layer is not used.

Note 2 to entry: As a result some surface properties are reduced (e.g. scratch, wear), therefore it is recommended that these products are used for vertical applications.

3.2.2

metal laminate

design laminate, the surface layer of which consists of a thin layer of metal

Note 1 to entry: Example: aluminium, steel or copper.

Note 2 to entry: It is often protected by a thin layer of lacquer or in the case of aluminium the surface can be anodized. The surface performance and appearance of these metal laminates is equivalent to that of thin metal sheet.

Note 3 to entry: As some surface properties are lower than that of melamine (e.g. scratch and wear), it is recommended that these products are used for vertical applications.

3.2.3

wood veneer laminate

design laminate, the surface layer of which consists of a wood veneer, which is covered by a protective melamine layer

Note 1 to entry: The surface appearance of these wood veneer laminates is similar to wood.

Note 2 to entry: Wood veneer laminates are not normally available in postforming grade.

3.2.4

lacquered laminate

design laminate, the surface layer of which consists of a lacquer/coating