

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

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 438-5:2005 sisaldab Euroopa standardi EN 438-5:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 30.03.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 438-5:2005 consists of the English text of the European standard EN 438-5:2005.</p> <p>This document is endorsed on 30.03.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This part of prEN 438 applies to five classes of flooring grade laminates less than 2 mm thick intended for bonding to supporting substrates, to produce HPL flooring elements. For laminate floor covering applications they meet the surface property requirements specified in EN 13329:2000. High-pressure decorative flooring laminates are characterised by their high resistance to abrasion, aesthetic qualities and durability. They have good hygienic and anti-static properties and are easy to clean and maintain.</p>	<p>Scope: This part of prEN 438 applies to five classes of flooring grade laminates less than 2 mm thick intended for bonding to supporting substrates, to produce HPL flooring elements. For laminate floor covering applications they meet the surface property requirements specified in EN 13329:2000. High-pressure decorative flooring laminates are characterised by their high resistance to abrasion, aesthetic qualities and durability. They have good hygienic and anti-static properties and are easy to clean and maintain.</p>
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Võtmesõnad: classifications, fibreboards, marking, materials, materials specification, panels, planks, plastic sheets, plastics, properties, quality assurance, resins, sheets, specification, specification (approval), specifications, testing, thermosetting

English version

High-pressure decorative laminates (HPL) - Sheets based on thermosetting resins (Usually called Laminates) - Part 5: Classification and specifications for flooring grade laminates less than 2 mm thick intended for bonding to supporting substrates

Stratifiés décoratifs haute pression (HPL) - Plaques à base de résines thermodurcissables (communément appelées stratifiés) - Partie 5 : Classification et spécifications des stratifiés pour revêtement de sols d'épaisseur inférieure à 2 mm destinés à être collés sur des supports

Dekorative Hochdruck-Schichtpressstoffplatten (HPL) - Platten auf Basis härtpbarer Harze (Schichtpressstoffe) - Teil 5: Klassifizierung und Spezifikationen für Schichtpressstoffe für Fußböden mit einer Dicke kleiner 2 mm, vorgesehen zum Verkleben auf ein Trägermaterial

This European Standard was approved by CEN on 16 August 2004.

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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.

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Foreword

This document (EN 438-5:2005) 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 Standard 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 Part of EN 438 applies to five classes of flooring grade laminates less than 2 mm thick intended for bonding to supporting substrates, to produce HPL flooring elements. For laminate floor covering applications they meet the surface property requirements specified in EN 13329.

High-pressure decorative flooring laminates are characterised by their high resistance to abrasion, aesthetic qualities and durability. They have good hygienic and anti-static properties and are easy to clean and maintain.

The requirements in this document apply only to the high-pressure laminate, and additional properties will need to be specified in order to define the functional performance of the finished flooring product.

This Part of EN 438 applies only to decorative laminates as defined in Clause 3.

EN 438-2 specifies the methods of test relevant to this part of EN 438.

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

EN 13329, *Laminate floor coverings- Specifications, requirements and test methods*

EN 316:, *Wood fibreboards - Definitions, classification and symbols*

EN 685:1995, *Resilient floor coverings — Classification*

EN 12721:1997, *Furniture — Assessment of surface resistance to wet heat (ISO 4211-2:1993 modified)*

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).*

3 Term and definition

For the purposes of this document, the following term and definition applies:

3.1

high-pressure decorative flooring grade laminate(s) (HPL)

sheet(s) consisting of layers of cellulosic fibrous material (normally paper) impregnated with thermosetting resins and bonded together by the high pressure process described below. The surface layer(s) on one side, having decorative colours or designs, are impregnated with melamine based resins and may contain special surface additives to improve abrasion resistance. The core layers are impregnated with phenolic based resins. The back of the sheet(s) is made suitable for adhesive bonding to a substrate.

The high pressure process is defined as the simultaneous application of heat (temperature ≥ 120 °C) and high specific pressure (≥ 5 MPa), to provide flowing and subsequent curing of the thermosetting resins to obtain a homogeneous non-porous material with increased density ($\geq 1,35$ g/cm³), and with the required surface finish.