

High-pressure decorative laminates (HPL) - Sheets based on thermosetting resins (Usually called Laminates) - Part 9: Classification and specifications for alternative core laminates

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 438-9:2010+A1:2013 sisaldab Euroopa standardi EN 438-9:2010+A1:2013 inglisekeelset teksti.	This Estonian standard EVS-EN 438-9:2010+A1:2013 consists of the English text of the European standard EN 438-9:2010+A1:2013.
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English Version

High-pressure decorative laminates (HPL) - Sheets based on thermosetting resins (Usually called Laminates) - Part 9: Classification and specifications for alternative core laminates

Stratifiés décoratifs haute pression (HPL) - Plaques à base de résines thermodurcissables (communément appelées stratifiés) - Partie 9 : Classification et spécifications relatives aux stratifiés avec autres types d'âmes

Dekorative Hochdruck-Schichtpressstoffplatten (HPL) - Platten auf Basis härtpbarer Harze (Schichtpressstoffe) - Teil 9: Klassifizierung und Spezifikationen für Schichtpressstoffe mit alternativem Kernaufbau

This European Standard was approved by CEN on 19 May 2010 and includes Amendment 1 approved by CEN on 21 September 2013.

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Foreword

This document (EN 438-9:2010+A1:2013) has been prepared by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by April 2014, and conflicting national standards shall be withdrawn at the latest by April 2014.

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 includes Amendment 1 approved by CEN on 2013-09-21.

This document supersedes EN 438-9:2010.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** and **A1**.

EN 438, *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 [this standard].*

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 performance requirements for high-pressure decorative laminates (HPL) intended for interior use, the core compositions of which are not covered by EN 438-3 [1] to EN 438-6 [4] and EN 438-8 [5]. The core composition types (coloured core and metal reinforced core) are defined in this part of EN 438.

EN 438-2 specifies the test methods 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 438-2:2005, *High-pressure decorative laminates (HPL) — Sheets based on thermosetting resins (usually called Laminates) — Part 2: Determination of properties*

EN 12721, *Furniture — Assessment of surface resistance to wet heat*

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

EN ISO 527-2, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics (ISO 527-2:1993 including Corr 1:1994)*

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 1183-1:2004)*

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

ISO 11664-2:2007, *Colorimetry — Part 2: CIE standard illuminants*

3 Terms and definitions

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

3.1
high pressure process
process for producing laminate(s) by simultaneous application of heat (temperature ≥ 120 °C) and high specific pressure (≥ 5 MPa), to provide flowing and subsequent curing of the thermosetting resins

3.2
high-pressure decorative alternative core laminate(s)
alternative core laminate(s)
HPL

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

NOTE 1 For alternative core layers, see 3.3.

NOTE 2 The surface layer(s) on one or both face(s), having decorative colours or designs, impregnated with melamine based resins are supported by a core. The surface layers can appear on one or both side(s) of the laminate(s). In case of one-sided laminates the back of the sheet(s) is made suitable for adhesive bonding to a substrate.