



NSAI
Standards

Irish Standard
I.S. EN 438-5:2016

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

I.S. EN 438-5:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

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This document is based on:

EN 438-5:2016

Published:

2016-02-17

*This document was published
under the authority of the NSAI
and comes into effect on:*

2016-03-06

ICS number:

83.140.20

NOTE: If blank see CEN/CENELEC cover page

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Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 438-5:2016 is the adopted Irish version of the European Document EN 438-5:2016, 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

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EUROPEAN STANDARD

EN 438-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2016

ICS 83.140.20

Supersedes EN 438-5:2005

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 härthbarer 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 13 December 2015.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions, symbols and abbreviations.....	5
3.1 Terms and definitions.....	5
3.2 Symbols	5
4 Classification system	5
5 Requirements	6
5.1 Compliance.....	6
5.2 Inspection requirements.....	6
5.2.1 General.....	6
5.2.2 Colour and pattern	6
5.2.3 Surface finish	6
5.2.4 Reverse side	7
5.2.5 Visual inspection.....	7
5.3 Dimensional tolerance requirements	7
5.4 Test requirements.....	8
5.4.1 General requirements.....	8
5.4.2 Notes on requirements for reaction to fire	10
5.5 Supplemental properties.....	10

European foreword

This document (EN 438-5:2016) 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 August 2016, and conflicting national standards shall be withdrawn at the latest by August 2016.

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 supersedes EN 438-5:2005.

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*

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.

EN 438-5:2016 (E)**1 Scope**

This European Standard applies to six classes of flooring grade laminates less than 2 mm thick produced by using a high pressure process, 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 European Standard applies only to decorative laminates as defined in Clause 3.

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

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 316, *Wood fibre boards — Definition, classification and symbols*

EN 438-2:2016, *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 13329, *Laminate floor coverings — Elements with a surface layer based on aminoplastic thermosetting resins — Specifications, requirements and test methods*

EN 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 13722, *Furniture — Assessment of the surface gloss*

EN 16094, *Laminate floor coverings — Test method for the determination of micro-scratch resistance*

EN 61340-4-1, *Electrostatics — Part 4-1: Standard test methods for specific applications — Electrical resistance of floor coverings and installed floors (IEC 61340-4-1)*

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)*

EN ISO 9239-1, *Reaction to fire tests for floorings — Part 1: Determination of the burning behaviour using a radiant heat source (ISO 9239-1)*

EN ISO 10874, *Resilient, textile and laminate floor coverings — Classification (ISO 10874)*

EN ISO 11664-2, *Colorimetry — Part 2: CIE standard illuminants (ISO 11664-2)*

EN ISO 11925-2, *Reaction to fire tests - Ignitability of products subjected to direct impingement of flame — Part 2: Single-flame source test (ISO 11925-2)*

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