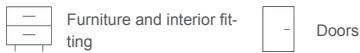


## Technical data

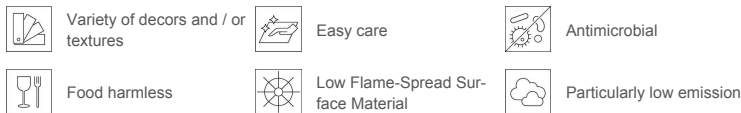
### Duropal HPL IMO

Decorative high-pressure laminate in postforming quality conforming to EN 438-3:HGP/VGP „Low Flame-Spread Surface Material“ with robust melamine resin surface and sanded reverse.

#### Applications



#### Properties



#### Certificates



Melamine impregnated decorative paper

Impregnated craft paper, reverse side sanded

Specification				Unit	Test standard
Nominal thickness	0.6	0.8	1.2	mm	
Tolerance on thickness	± 0.1	± 0.1	± 0.15	mm	EN 438-2
Tolerance on length		+ 10		mm	EN 438-2
Tolerance on width		+ 10		mm	EN 438-2
Surface defects		max. 1 <sup>1)</sup> max. 10 <sup>2)</sup>		mm <sup>2</sup> /m <sup>2</sup> mm/m <sup>2</sup>	EN 438-2
Edge defects		max. 20		mm	EN 438-2
Straightness of edges		max. 1.5		mm/m	EN 438-2
Squareness		max. 1.5		mm/m	EN 438-2
Flatness (length)		max. 60		mm/m	EN 438-2
Density		min. 1,350		kg/m <sup>3</sup>	EN ISO 1183-1
Dimensional stability at elevated temperature (length)		max. 0.55 <sup>3)</sup> max. 0.75 <sup>4)</sup>		%	EN 438-2
Dimensional stability at elevated temperature (width)		max. 1.05 <sup>3)</sup> max. 1.25 <sup>4)</sup>		%	EN 438-2
Resistance to wet heat, 100 °C (gloss finishes)		min. 3		rating	EN 438-2
Resistance to wet heat, 100 °C (other finishes)		min. 4		rating	EN 438-2
Resistance to dry heat, 160 °C (gloss finishes)		min. 3		rating	EN 438-2
Resistance to dry heat, 160 °C (other finishes)		min. 4		rating	EN 438-2
Resistance to water vapour (gloss finishes)		min. 3		rating	EN 438-2
Resistance to water vapour (other finishes)		min. 4		rating	EN 438-2
Resistance to immersion in boiling water (gloss finishes)		min. 3		rating	EN 438-2

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### Duropal HPL IMO

Specification				Unit	Test standard
<b>Nominal thickness</b>	<b>0.6</b>	<b>0.8</b>	<b>1.2</b>	<b>mm</b>	
Resistance to immersion in boiling water (other finishes)	min. 4			rating	EN 438-2
Resistance to surface wear	min. 50 <sup>4)</sup> min. 150 <sup>3)</sup>			cycles	EN 438-2
Resistance to scratching (smooth finishes)	min. 1 <sup>4)</sup> min. 2 <sup>3)</sup>			rating	EN 438-2
Resistance to scratching (textured finishes)	min. 2 <sup>4)</sup> min. 3 <sup>3)</sup>			rating	EN 438-2
Resistance to impact (small diameter ball)	min. 15 <sup>4)</sup> min. 20 <sup>3)</sup>			N	EN 438-2
Stain resistance (groups 1 & 2)	min. 5			rating	EN 438-2
Stain resistance (group 3)	min. 4			rating	EN 438-2
Resistance to colour change (xenon arc light)	4 to 5 Grey Scale Grade				EN 438-2
Marine Approvals	MED MER USCG CCS	MED MER USCG CCS	MED USCG		
Formaldehyde emission class	E1 E05				EN 717-1
Formability (length)	min. 10 x t <sup>5)</sup>	min. 10 x t <sup>5)</sup>	min. 10 x t <sup>5)</sup> Depending on decor and structure – processing tests are to be carried out		EN 438-2
Formability (width)	Not determined, processing tests are to be carried out.				

<sup>1)</sup> Dirt, spots and similar surface defects

<sup>2)</sup> Fibres, hairs and scratches

<sup>3)</sup> Classification HGP

<sup>4)</sup> Classification VGP

<sup>5)</sup> t = nominal thickness

### Additional information

Product standard	<ul style="list-style-type: none"> <li>EN 438-3</li> </ul>
Areas of application	<ul style="list-style-type: none"> <li>Flame retardant surface material for preventive fire protection in the decorative sector in ship interior fitting. Particularly for corridors and stairways, for partition walls, doors, wall and ceiling coverings.</li> </ul>
Product safety	<ul style="list-style-type: none"> <li>This product follows the REACH regulation EC 1907/2006 an article. Following Article 7 it does not need to be registered.</li> <li>The surface is physiologically safe, and approved for direct contact with food acc. to Regulation (EU) No. 10/2011.</li> <li>The decorative surface and the core consists of paper layers, which are impregnated with thermosetting resins. The resins harden completely during the manufacturing process by heat and high-pressure. They form a stable, resistant and non-reactive material.</li> <li>We manufacture the panels without the use of halogens, heavy metals, preservatives, wood protectors or organic solvents.</li> </ul>

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### Duropal HPL IMO

Antimicrobial effect	<ul style="list-style-type: none"> <li>Surface with antimicrobial effect in 24 h for interior fit-out and finishes – Test Methodology JIS Z 2801 / ISO 22196</li> </ul>
Special	<ul style="list-style-type: none"> <li>The coarser the structure and the lighter the decor, the greater the scratch resistance.</li> <li>The smoother the structure and the the darker the decor, the more sensitive it is to stains.</li> <li>Depending on the decor and surface texture, slightly different surface visual impressions can result between cut panels viewed from different angles. This is a result of the production methods and does not constitute a quality defect.</li> <li>Especially for large applications, we recommend paying attention to the colour and texture uniformity of the boards and cut products used when further processing and installing and that the production direction is taken into account.</li> <li>With intensive plain decors, especially in the red range, colour pigment wash-out may occur under certain circumstances. It is possible that colour pigments are not bound by the resin during the impregnation of the decor paper and are only deposited on the surface of the impregnate and are thus directly on the surface. If cleaning is then carried out, slight discolouration of the cleaning cloths can be observed. This is particularly the case when solvent-based cleaners are used. This is not a product defect.</li> <li>Classification MED, MER, USCG, CCS for the widths 915 mm / 950 mm / 1,050 mm / 1,300 mm   Classification MED, USCG for the width 2,070 mm</li> <li>Classification HGP / HGS / HGF is achieved with the surface textures recommended for horizontal applications. Requirements of classification VGP / VGS / VGF are met by all surface textures. Please refer to our sales documentation, to check which textures are available for this product.</li> </ul>
Note	<ul style="list-style-type: none"> <li>FSC certification or PEFC certification available on request.</li> <li>FSC license code: FSC® C011773</li> <li>PEFC license code: PEFC/04-32-0828</li> </ul>
Colour and surface match	<ul style="list-style-type: none"> <li>Decor, structure and core board all influence the final appearance of the end product.</li> <li>Due to the product-specific differences in production technologies, even identical decor/structure/core board combinations can result in slight optical and tactile deviations across different product groups and formats. Such deviations do not constitute a defect.</li> <li>The choice of surface structure in particular has a significant influence on the visual impression, the tactile perception as well as the technical characteristics of the product. Thus, the overall impression of a decor can change almost completely depending on the surface structure. Furthermore, mechanical influences on the product surface can lead to a higher contrast optical perception with dark decors.</li> <li>To ensure that you always achieve the best results with our products and to clarify any deviations in advance, we will be happy to advise you individually.</li> </ul>

Further information on products, formats and decor/structure combinations is available at [www.pfleiderer.com](http://www.pfleiderer.com)

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