

## Technical data

### Duropal Element MFP Hybrid

Heavy-duty HPL bonded board with isotropic bending strength consisting of a particleboard MFP type P5 to EN 312 as middle layer and one high-density thin fibreboard (HDF) to EN 622-1 as top layer on each side, surfaced on both sides with Duropal HPL. The innovative wood-based panel combination offers maximum stability with optimum uniformity of finish.



#### Applications



Furniture and interior fitting

#### Properties



Variety of decors and / or textures



Easy care



Antimicrobial



Food harmless



Load bearing – particularly high bending strength

#### Certificates



Specification		Unit	Test standard
Nominal thickness	20.6	mm	
HPL-thickness	0.8	mm	
Design front edge	not processed		
Design rear edge	not processed		
Tolerance on thickness	± 0.5	mm	ISO 13894-1
Tolerance on length	± 5	mm	ISO 13894-1
Tolerance on width	± 5	mm	ISO 13894-1
Surface defects – HPL	max. 1 <sup>1)</sup> max. 10 <sup>2)</sup>	mm <sup>2</sup> /m <sup>2</sup> mm <sup>2</sup> /m <sup>2</sup>	EN 438-2
Straightness of edges	± 0.5	mm/m	ISO 13894-1
Squareness	≤ 2	mm/m	ISO 13894-1
Flatness (length)	≤ 2	mm/m	ISO 13894-1
Flatness (width)	≤ 2	mm/m	ISO 13894-1
Resistance to wet heat, 100 °C (gloss finishes) - HPL	min. 3	rating	EN 438-2
Resistance to wet heat, 100 °C (other finishes) – HPL	min. 4	rating	EN 438-2
Resistance to dry heat, 160 °C (gloss finishes) – HPL	min. 3	rating	EN 438-2
Resistance to dry heat, 160 °C (other finishes) – HPL	min. 4	rating	EN 438-2
Resistance to water vapour (gloss finishes) – HPL	min. 3	rating	EN 438-2
Resistance to water vapour (other finishes) – HPL	min. 4	rating	EN 438-2
Resistance to surface wear – HPL	min. 50 <sup>3)</sup> min. 150 <sup>4)</sup>	cycles	EN 438-2

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Specification		Unit	Test standard
Nominal thickness	20.6	mm	
HPL-thickness	0.8	mm	
Resistance to scratching (smooth finishes) – HPL	min. 1 <sup>3)</sup> min. 2 <sup>4)</sup>	rating	EN 438-2
Resistance to scratching (textured finishes) – HPL	min. 2 <sup>3)</sup> min. 3 <sup>4)</sup>	rating	EN 438-2
Resistance to impact (small diameter ball)	≥ 15	N/mm	EN 13894-1
Stain resistance (groups 1 & 2) – HPL	min. 5	rating	EN 438-2
Stain resistance (group 3) – HPL	min. 4	rating	EN 438-2
Resistance to colour change (xenon arc light) – HPL	4 to 5 Grey Scale Grade		EN 438-2
Reaction to fire (Euroclass)	not classified		
Formaldehyde emission class	E1 E05		EN 717-1
Mean density	760 - 780 <sup>5)</sup>	kg/m <sup>3</sup>	EN 323
Bending strength	28 <sup>5)</sup>	N/mm <sup>2</sup>	EN 310
Modulus of elasticity (bending stiffness)	4,100 <sup>5)</sup>	N/mm <sup>2</sup>	EN 310
Internal bond	0.5 <sup>5)</sup>	N/mm <sup>2</sup>	EN 319
Surface soundness	0.8 <sup>5)</sup>	N/mm <sup>2</sup>	EN 311
Durability – Water resistance	≤ 5	%	ISO 13894-1
Resistance to fixings (face)	≥ 1,500	N	ISO 13894-1
Resistance to fixings (edge)	≥ 500	N	ISO 13894-1
Bonding strength	≥ 1	N/mm <sup>2</sup>	ISO 13894-1
Flexural tensile strength	≥ 1	N/mm <sup>2</sup>	ISO 13894-1
Durability – Glue-line quality	≤ 5	rating	ISO 13894-1
Durability – Resistance to elevated temperature	no effect		ISO 13894-1

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

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

<sup>3)</sup> Classification VGP

<sup>4)</sup> Classification HGP

<sup>5)</sup> Core material

#### Additional information

Product standard	<ul style="list-style-type: none"> <li>EN 13894-1</li> </ul>
Areas of application	<ul style="list-style-type: none"> <li>In the top-end furniture and interior finishes sector ideal for shop and shelf systems as well as for office and projects furniture. Due to the directionally independent bending strength, good durability and robust Duropal HPL facing, it can be used universally and with very little cutting waste.</li> </ul>
Core material	<ul style="list-style-type: none"> <li>PremiumBoard MFP Hybrid</li> <li>PremiumBoard MFP Hybrid consists of a PremiumBoard MFP Living P5 as core layer combined with StyleBoard HDF as top layers with a thickness of 2 mm that can also be laminated on both sides. The MFP and HDF panels are glued using PVAC-glue (D4-glue). Due to its isotropic bending strength, its very good screw-holding strength and its high durability, the Hybrid wood-based panel is mainly suited for applications where high stability and load-bearing capacity are required.</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> </ul>

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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>Holoheedral metallic designs can show because of light refraction certain optical area effects which also can be directional and slightly higher differences in the colour connection in comparison to classic plain colours.</li> <li>Please consider that metallic designs react more sensitive to scratching and abrasion as well as to humidity as normal printed designs. The sensitivity of the surface increases with growing metallic content. The surface values of the relevant product standard are therefore only limited fulfilled.</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>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> <li>By some decor/texture combinations a slight surface disruption may be visible. This is due to the construction of the core material and is not indicative of a quality fault.</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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