

August 2021

# **Technical data**

# Duropal Element P2 ESA

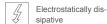
Electrostatically dissipative flat bonded element of an ESA chipboard faced on both sides with durable Duropal HPL ESA.

#### **Applications**



#### Properties





#### Certificates







Specification			Unit	Test standard
Nominal thickness	20.6	39.6	mm	
HPL-thickness in mm	0.8	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 ± 10		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>		mm²/m² mm/m²	EN 438-3:2016
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 (textured finishes) - HPL	min. 4		rating	EN 438-2:2016
Resistance to dry heat, 160 °C (textured finishes) - HPL	min. 4		rating	EN 438-2:2016
Resistance to surface wear - HPL	min. 50 <sup>3)</sup> min. 150 <sup>4)</sup>		cycles	EN 438-2:2016
Resistance to scratching (tex- tured finishes) - HPL	min. 2 <sup>3)</sup> min. 3 <sup>4)</sup>		rating	EN 438-2:2016
Resistance to impact (small di- ameter ball)	≥ 15		N	ISO 13894-1
Stain resistance (groups 1 & 2) - HPL	min. 5		rating	EN 438-2:2016
Stain resistance (group 3) - HPL	min. 4		rating	EN 438-2:2016
Resistance to colour change xenon arc light) - HPL	4 to 5 Grey Scale Grade			EN 438-2:2016
Reaction to fire	normally flamma	ible		



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Specification			Unit	Test standard
Nominal thickness	20.6	39.6	mm	
HPL-thickness in mm	0.8	0.8	mm	
Reaction to fire (Euroclass)	D-s2,d0	not classified		EN 13501-1, CWF7 acc. to 2003/593/ EG
Volume resistance R <sub>D</sub>	1 x 10 - 1 x 10 Ohm <sup>5)</sup>			EN 61340-5-1
Formaldehyde emission class	E1 E05			EN 717-1
Mean density	640 - 620 <sup>6)</sup>	580 - 540 <sup>6)</sup>	kg/m³	EN 323
Bending strength - Raw core materials	11 <sup>6)</sup>	8.5 <sup>6)</sup>	N/mm²	EN 310
Modulus of elasticity (bending stiffness) - Raw core materials	1,600 <sup>6)</sup>	1,200 <sup>6)</sup>	N/mm²	EN 310
Internal bond - Raw core materi- als	0.35 <sup>6)</sup>	0.2 <sup>6)</sup>	N/mm²	EN 319
Surface soundness - Raw core materials	0.8 <sup>6)</sup>		N/mm²	EN 311
Durability - Water resistance	≤ 15		%	ISO 13894-1
Resistance to fixings (face)	≥ 1,500		N	ISO 13894-1
Resistance to fixings (edge)	≥ 500		N	ISO 13894-1
Bonding strength	≥ 0.6		N/mm²	ISO 13894-1
Flexural tensile strength	≥ 0.6		N/mm²	ISO 13894-1
Durability - Glue-line quality	≥ 3		rating	ISO 13894-1
Durability - Resistance to elevated temperature	no effect			ISO 13894-1

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

<sup>&</sup>lt;sup>2)</sup> Fibres, hairs and scratches

<sup>3)</sup> Classification VGP

<sup>&</sup>lt;sup>4)</sup> Classification HGP

<sup>5)</sup> measured dry, measurement voltage 100 V DC, cylindrical electrode, 20-30 °C and 20-50% rel. humidity (96 h conditioning)

<sup>6)</sup> Core material



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#### **Duropal Element P2 ESA**

#### **Additional information**

Product standard	• EN 13894-1			
Areas of application	The products from our ESA system are indispensable wherever electrostatic charges are to be prevented. The conductive constituents in the core plate and facing ensure a reliable and simple earthing possibility for furniture components and worktops in ESD areas, on production and assembly lines, in laboratories or central control rooms.			
Product safety	<ul> <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>			
Special	<ul> <li>Available in design W10140 (Span 140) and U12188 (U1188).</li> <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>Classification HGP / HGF is achieved with the surface textures recommended for horizontal applications. Requirements of classification VGP / 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> <li>FSC certification or PEFC certification available on request.</li> <li>FSC license code: FSC<sup>®</sup> C011773</li> <li>PEFC license code: PEFC/04-32-0828</li> </ul>			
Colour and surface match	<ul> <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

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