DUROPAL | thermopal

PFLEIDERER

August 2021

Technical data

Duropal Element P2

Flat bonded element consisting of a particleboard construction, Type P2 to EN 312, surfaced on both sides with Duropal HPL.

Applications

- Furniture and interior fitting

Properties

- Decorative variety
- Easy care
- Antimicrobial
- Food harmless
- Particularly low emission

Certificates

Specification						Unit	Test standard
Nominal thickness	**9.6**	**16**	**17.6**	**19**	**20.6**	**mm**	
HPL-thickness in mm	**0.8**	**0.8**	**0.8**	**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					mm	ISO 13894-1
Tolerance on width	± 5					mm	ISO 13894-1
Surface defects - HPL	max. 1 [1)] max. 10 [2)]					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 (smooth finishes) - HPL	min. 3					rating	EN 438-2:2016
Resistance to wet heat, 100 °C (textured finishes) - HPL	min. 4					rating	EN 438-2:2016
Resistance to dry heat, 160 °C (smooth finishes) - HPL	min. 3					rating	EN 438-2:2016
Resistance to dry heat, 160 °C (textured finishes) - HPL	min. 4					rating	EN 438-2:2016
Resistance to water vapour (smooth finishes) - HPL	min. 3					rating	EN 438-2:2016
Resistance to water vapour (textured finishes) - HPL	min. 4					rating	EN 438-2:2016
Resistance to surface wear - HPL	min. 50 [3)] min. 150 [4)]					cycles	EN 438-2:2016
Resistance to scratching (smooth finishes) - HPL	min. 1 [3)] min. 2 [4)]					rating	EN 438-2:2016
Resistance to scratching (textured finishes) - HPL	min. 2 [3)] min. 3 [4)]					rating	EN 438-2:2016

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Specification						Unit	Test standard
Nominal thickness	**9.6**	**16**	**17.6**	**19**	**20.6**	**mm**	
HPL-thickness in mm	**0.8**	**0.8**	**0.8**	**0.8**	**0.8**	**mm**	
Resistance to impact (small diameter ball)	≥ 15					N/mm	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 flammable						
Reaction to fire (Euroclass)	not classified	D-s2,d0	D-s2,d0	D-s2,d0	D-s2,d0		EN 13501-1, CWFT acc. to 2003/593/EG
Formaldehyde emission class	E1 E05						EN 717-1
Mean density	≥ 720 [5)]	640 - 620 [5)]	640 - 620 [5)]	640 - 620 [5)]	640 - 620 [5)]	kg/m³	EN 323
Bending strength - Raw core materials	11 [5)]					N/mm²	EN 310
Modulus of elasticity (bending stiffness) - Raw core materials	1,800 [5)]	1,600 [5)]	1,600 [5)]	1,600 [5)]	1,600 [5)]	N/mm²	EN 310
Internal bond - Raw core materials	0.4 [5)]	0.35 [5)]	0.35 [5)]	0.35 [5)]	0.35 [5)]	N/mm²	EN 319
Surface soundness - Raw core materials	0.8 [5)]					N/mm²	EN 311
Durability - Water resistance	≤ 15					%	ISO 13894-1
Resistance to fixings (face)	≥ 100	≥ 1,500	≥ 1,500	≥ 1,500	≥ 1,500	N/mm	ISO 13894-1
Resistance to fixings (edge)		≥ 500	≥ 500	≥ 500	≥ 500	N/mm	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

[1)] Dirt, spots and similar surface defects
[2)] Fibres, hairs and scratches
[3)] Classification VGP
[4)] Classification HGP
[5)] Core material

Specification					Unit	Test standard
Nominal thickness	**23.6**	**25**	**29.6**	**39.6**	**mm**	
HPL-thickness in mm	**0.8**	**0.8**	**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				mm	ISO 13894-1
Tolerance on width	± 5				mm	ISO 13894-1
Surface defects - HPL	max. 1 [1)] max. 10 [2)]				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

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Specification					Unit	Test standard
Nominal thickness	**23.6**	**25**	**29.6**	**39.6**	**mm**	
HPL-thickness in mm	**0.8**	**0.8**	**0.8**	**0.8**	**mm**	
Flatness (width)	≤ 2				mm/m	ISO 13894-1
Resistance to wet heat, 100 °C (smooth finishes) - HPL	min. 3				rating	EN 438-2:2016
Resistance to wet heat, 100 °C (textured finishes) - HPL	min. 4				rating	EN 438-2:2016
Resistance to dry heat, 160 °C (smooth finishes) - HPL	min. 3				rating	EN 438-2:2016
Resistance to dry heat, 160 °C (textured finishes) - HPL	min. 4				rating	EN 438-2:2016
Resistance to water vapour (smooth finishes) - HPL	min. 3				rating	EN 438-2:2016
Resistance to water vapour (textured finishes) - HPL	min. 4				rating	EN 438-2:2016
Resistance to surface wear - HPL	min. 50 [3] min. 150 [4]				cycles	EN 438-2:2016
Resistance to scratching (smooth finishes) - HPL	min. 1 [3] min. 2 [4]				rating	EN 438-2:2016
Resistance to scratching (textured finishes) - HPL	min. 2 [3] min. 3 [4]				rating	EN 438-2:2016
Resistance to impact (small diameter ball)	≥ 15				N/mm	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 flammable					
Reaction to fire (Euroclass)	D-s2,d0	D-s2,d0	not classified	not classified		EN 13501-1, CWFT acc. to 2003/593/EG
Formaldehyde emission class	E1 E05					EN 717-1
Mean density	620 - 600 [5]	620 - 600 [5]	600 - 580 [5]	580 - 540 [5]	kg/m³	EN 323
Bending strength - Raw core materials	10.5 [5]	10.5 [5]	9.5 [5]	8.5 [5]	N/mm²	EN 310
Modulus of elasticity (bending stiffness) - Raw core materials	1,500 [5]	1,500 [5]	1,350 [5]	1,200 [5]	N/mm²	EN 310
Internal bond - Raw core materials	0.3 [5]	0.3 [5]	0.25 [5]	0.2 [5]	N/mm²	EN 319
Surface soundness - Raw core materials	0.8 [5]				N/mm²	EN 311
Durability - Water resistance	≤ 15				%	ISO 13894-1
Resistance to fixings (face)	≥ 1,500				N/mm	ISO 13894-1
Resistance to fixings (edge)	≥ 500				N/mm	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

[1] Dirt, spots and similar surface defects
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Additional information

Product standard	• EN 13894-1
Areas of application	• Furniture production and interior design wherever high demands are made on quality and durability: For kitchen and interior design furniture, in shop fitting and partition wall construction, for interior fitting of banks, offices, schools, clinics, laboratories, retail buildings, in shipbuilding and motor vehicle construction.
Core material	• ClassicBoard P2 • Urea resin-bonded particleboard, type P2 in accordance with EN 312, suitable for non load-bearing purposes in dry areas.
Product safety	• This product follows the REACH regulation EC 1907/2006 an article. Following Article 7 it does not need to be registered. • The surface is physiologically safe, and approved for direct contact with food acc. to Regulation (EU) No. 10/2011. • We manufacture the panels without the use of halogens, heavy metals, preservatives, wood protectors or organic solvents.
Antimicrobial effect	• Surface with antimicrobial effect in 24h for interior fit-out and finishes - Test Methodology JIS Z 2801 / ISO 22196
Special	• It is recommended to order overlay for horizontal, heavy used surfaces in combination with metallic designs. Slight visual difference to the surface is possible without the overlay. • Certificate Blue Angel - Ecolabel (RAL DE-UZ 76)
Note	• FSC certification or PEFC certification available on request. • FSC license code: FSC® C011773 • PEFC license code: PEFC/04-32-0828
Colour and surface match	• Decor, structure and core board all influence the final appearance of the end product. • 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. • 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. • 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.

Further information on products, formats and decor/structure combinations is available at www.pfleiderer.com

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