DUROPAL | thermopal

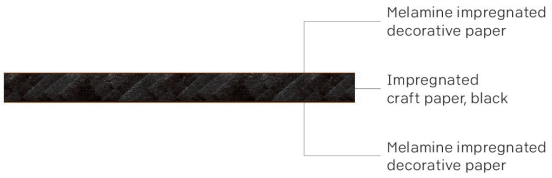
PFLEIDERER

May 2025

Technical data

Duropal HPL Compact, black core

Compact high-pressure laminate in standard quality conforming to EN 438-4:CGS. With uniform black-coloured core and decorative melamine resin surface on both sides.



Applications

- Furniture and interior fitting

Properties

- Variety of decors and / or textures
- Easy care
- Antimicrobial
- Food harmless
- Low swelling / moisture resistant
- High impact resistance
- Particularly low emission

Certificates

Specification						Unit	Test standard
Nominal thickness	**2**	**3**	**4**	**5**	**6**	**mm**	
Tolerance on thickness	± 0.2	± 0.3	± 0.3	± 0.4	± 0.4	mm	EN 438-2
Tolerance on length			+ 10			mm	EN 438-2
Tolerance on width			+ 10			mm	EN 438-2
Surface defects			max. 1 [1)] max. 10 [2)]			mm²/m² mm/m²	EN 438-2
Edge defects			max. 3			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	max. 8	max. 8	max. 8	max. 8	max. 5	mm/m	EN 438-2
Density			min. 1,350			kg/m³	EN ISO 1183-1
Bending strength			min. 80			MPa	EN ISO 178
Flexural modulus			min. 9,000			MPa	EN ISO 178
Resistance to crazing			min. 4			rating	EN 438-2
Dimensional stability at elevated temperature (length)	max. 0.4	max. 0.4	max. 0.4	max. 0.3	max. 0.3	%	EN 438-2
Dimensional stability at elevated temperature (width)	max. 0.8	max. 0.8	max. 0.8	max. 0.6	max. 0.6	%	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

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Specification						Unit	Test standard
Nominal thickness	**2**	**3**	**4**	**5**	**6**	**mm**	
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
Resistance to immersion in boiling water (other finishes)	min. 4					rating	EN 438-2
Resistance to immersion in boiling water (edge)	min. 3					rating	EN 438-2
Resistance to immersion in boiling water	max. 5 [3] max. 6 [4]	max. 5 [3] max. 6 [4]	max. 5 [3] max. 6 [4]	max. 2 [3] [4]	max. 2 [3] [4]	%	EN 438-2
Resistance to surface wear	min. 150					cycles	EN 438-2
Resistance to scratching (smooth finishes)	min. 2					rating	EN 438-2
Resistance to scratching (textured finishes)	min. 3					rating	EN 438-2
Resistance to impact by large diameter ball – impression diameter	max. 10					mm	EN 438-2
Resistance to impact by large diameter ball – Fall height	min. 1,400	min. 1,400	min. 1,400	min. 1,400	min. 1,800	mm	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
Reaction to fire	normally flammable						
Reaction to fire (Euroclass)	not classified	not classified	not classified	not classified	D-s2,d0		EN 13501-1, CWFT conforming to 2003/593/EG
Formaldehyde emission class	E1 E05						EN 717-1

[1] Dirt, spots and similar surface defects
[2] Fibres, hairs and scratches
[3] Mass increase
[4] Thickness increase

Specification						Unit	Test standard
Nominal thickness	**8**	**10**	**12**	**13**	**15**	**mm**	
Tolerance on thickness	± 0.5	± 0.5	± 0.6	± 0.6	± 0.6	mm	EN 438-2
Tolerance on length	+ 10					mm	EN 438-2
Tolerance on width	+ 10					mm	EN 438-2
Surface defects	max. 1 [1] max. 10 [2]					mm²/m² mm/m²	EN 438-2
Edge defects	max. 3					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	max. 5	max. 3	max. 3	max. 3	max. 3	mm/m	EN 438-2
Density	min. 1,350					kg/m³	EN ISO 1183-1
Bending strength	min. 80					MPa	EN ISO 178
Flexural modulus	min. 9,000					MPa	EN ISO 178
Resistance to crazing	min. 4					rating	EN 438-2

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Specification						Unit	Test standard
Nominal thickness	**8**	**10**	**12**	**13**	**15**	**mm**	
Dimensional stability at elevated temperature (length)	max. 0.3					%	EN 438-2
Dimensional stability at elevated temperature (width)	max. 0.6					%	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
Resistance to immersion in boiling water (other finishes)	min. 4					rating	EN 438-2
Resistance to immersion in boiling water (edge)	min. 3					rating	EN 438-2
Resistance to immersion in boiling water	max. 2 [3) 4)]					%	EN 438-2
Resistance to surface wear	min. 150					cycles	EN 438-2
Resistance to scratching (smooth finishes)	min. 2					rating	EN 438-2
Resistance to scratching (textured finishes)	min. 3					rating	EN 438-2
Resistance to impact by large diameter ball – impression diameter	max. 10					mm	EN 438-2
Resistance to impact by large diameter ball – Fall height	min. 1,800					mm	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
Reaction to fire	normally flammable						
Reaction to fire (Euroclass)	D-s2,d0						EN 13501-1, CWFT conforming to 2003/593/EG
Formaldehyde emission class	E1 E05						EN 717-1

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

Product standard	• EN 438-4
Areas of application	• For unusual furniture and interior concepts in the home and contract sectors, in leisure and spa facilities, in shop design, in catering, as well as in humid and wet conditions in which particular robustness, durability and high hygienic standards including aesthetics are required of the material. The material is suitable for open edge solutions as well as for engraving for individual 3D effects.
Core material	• Compact laminate black • Uniform black through-pigmented solid compact laminate core, impact resistant and moisture resistant for applications with high specification demands.
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. • 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. • We manufacture the panels without the use of organohalogens, heavy metals, preservatives, wood protectors or organic solvents.
Antimicrobial effect	• Surface with antimicrobial effect in 24 h for interior fit-out and finishes – Test Methodology JIS Z 2801 / ISO 22196
Special	• The coarser the structure and the lighter the decor, the greater the scratch resistance. • The smoother the structure and the the darker the decor, the more sensitive it is to stains. • 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. • 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. • 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. • Due to the black core of the material, minor decorative deviations to other products cannot be avoided. • For production-related reasons, there may be minor colour variations in the black material core. • The uneven edge appearance is due to the structure depth of the texture Solid Granite caused by the product and does not represent a quality defect. • Decor-structure-combination front side = Decor-structure-combination reverse side • Subsequent oiling (with suitable cooking oil) of the machined edge can reduce machining and wear marks. • Please note that in everyday use, polishing, scratches and shiny spots may occur due to mechanical stress, which are particularly visible on darker decors. This does not represent a quality defect or a restriction of usability. Rather, it reflects the natural ageing of the surface. The product complies with all requirements of EN 438.
Note	• 2,800 x 1,860/2,070; 5,600 x 2,070 – FSC-certification or PEFC-certification available on request. • 4,100 x 1,300 – With PEFC-certification. • 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.

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

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