TRESPA® TOPLAB® *PLUS ALIGN*

MATERIAL PROPERTY DATASHEET

Decorative high-pressure compact laminates according to EN 438-4:2016 of thickness of 16 mm (± 5/8 in) and 20 mm (± 3/4 in) for interior scientific surface solutions. Sheets consisting of layers of wood-based fibres impregnated with lignin-based thermosetting resin and surface layer(s) on one or both sides, having decorative colours or designs. A transparent topcoat is added to the surface layer(s) and cured by Trespa's unique in-house technology Electron Beam Curing (EBC). These components are bonded together with simultaneous application of heat and high specific pressure to obtain a homogeneous closed material with increased density and integral decorative surface.

PROPERTIES	TEST METHOD	PROPERTY OR ATTRIBUTE	UNIT	RESULT[AB] STANDARD: EN 438-4 COLOUR/DECOR: ALL[B]
SURFACE QUALITY				
	EN 438-2 : 4	Spots, dirt, similar surface defects	mm^2/m^2	≤ 1
			in^2/ft^2	≤ 0.0001
		Fibres, hairs & scratches	mm/m^2	≤ 10
			in/ft^2	≤ 0.036
DIMENSIONAL TOLERANCES				
	EN 438-2 : 5	Thickness	mm	13.0 ≤ t < 16.0: +/- 0.60
				16.0 ≤ t < 20.0: +/- 0.70
				20.0 ≤ t ≤ 25.0: +/- 0.80
			in	0.4724 ≤ t < 0.6299 : +/- 0.0236
				0.6299 ≤ t < 0.7874 : +/- 0.0275
				0.7874 ≤ t ≤ 0.9842 : +/- 0.0315
	EN 438-2 : 9	Flatness	mm/m	≤ 2
			in/ft	≤ 0.024
	EN 438-2 : 6	Length & width	mm	+ 5 / - 0
			in	+ 0.1968 / - 0
	EN 438-2 : 7	Straightness of edges	mm/m	≤ 1
			in/ft	≤ 0.012
	Trespa Standard	Squareness	mm	2550 x 1860 : difference between diagonals (x-y)) ≤ 4
				3050 x 1530 : difference between diagonals (x-y)) ≤ 4
				3650 x 1860 : difference between diagonals (x-y) ≤ 5
			in	100.39 x 73.23 : difference between diagonals (x-y) ≤ 0.1575
				120.08 x 60.24 : difference between diagonals (x-y) ≤ 0.1575
				143.70 x 73.23 : difference between diagonals (x-y) ≤ 0.1969
PHYSICAL PROPERTIES				
Resistance to surface wear	EN 438-2 : 10	Wear resistance - Revolutions (min)	Initial point	≥ 150
Resistance to impact by large diameter ball	EN 438-2 : 21	Indentation diameter - 6 ≤ t mm with drop height 1.8 m	mm	≤ 10
Resistance to scratching	EN 438-2 : 25	Force	Rating (min)	≥ 4
Resistance to dry heat (160° C / 320° F)	EN 438-2 : 16	Appearance	Rating (min)	≥ 4
Resistance to wet heat (100° C / 212° F)	EN 438-2 : 18	Appearance	Rating (min)	≥ 4
Dimensional stability at elevated temperature	EN 438-2 : 17	Cumulative dimensional change	Longitudinal %	≤ 0.25
			Transversal %	≤ 0.25
Light fastness (xenon arc)	EN 438-2 : 27	Contrast	Grey scale ISO 105 A02	4-5
Resistance to water vapour	EN 438-2 : 14	Appearance	Rating (min)	≥ 4
Resistance to crazing	EN 438-2 : 24	Appearance	Rating (min)	≥ 4
Modulus of elasticity	EN ISO 178	Stress	MPa	≥ 9000
Flexural strength	EN ISO 178	Stress	MPa	≥ 100
Tensile strength	EN ISO 527-2	Stress	MPa	≥ 70
Density	EN ISO 1183	Density	g/cm^3	≥ 1.35
OTHER PROPERTIES				
Release of formaldehyde	EN 717-2	Classification	Class	E1
Chemical resistance	SEFA3-2010	Classification	Rating	Pass

[A] Due to conversion from metric values, the US values provided are approximate.

[B] All data are related to the products mentioned in the Trespa® Toplab® PLUS ALIGN standard delivery programme.

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