TRESPA® METEON®

MATERIAL PROPERTY DATASHEET

Decorative high-pressure compact laminates according to EN 438-6:2016 with thicknesses of 6 mm (± ¼ in) or greater for outdoor applications. Sheets consisting of layers of natural fibres (paper and/or wood) impregnated with thermosetting resins 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), to enhance weather and light protecting properties. 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. They are available in the Standard grade (EDS; not available in all worldwide areas) and in the Fire-Retardant grade (EDF).

PROPERTIES	TEST METHOD	PROPERTY OR ATTRIBUTE	UNIT	RESULT[AB]	
				GRADE: EDS (METEON®)	GRADE: EDF (METEON® FR)
				STANDARD: EN 438-6	STANDARD: EN 438-6
				COLOUR/DECOR: ALL[B]	COLOUR/DECOR: ALL[B]
SURFACE QUALITY					
	EN 438-2 : 4	Spots, dirt, similar surface defects	mm^2/m^2	≤ 2	
			in^2/ft^2	≤ 0.0003	
		Fibres, hairs & scratches	mm/m^2	≤ 20	
			in/ft^2	≤ 0.073	
DIMENSIONAL TOLERANCES					
	EN 438-2 : 5	Thickness	mm	6.0 ≤ t < 8.0: +/- 0.40	
				8.0 ≤ t < 12.0: +/- 0.50	
				12.0 ≤ t < 16.0: +/- 0.60	
			in	0.2362 ≤ t < 0.3150: +/- 0.0157	
				0.3150 ≤ t < 0.4724: +/- 0.0197	
				0.4724 ≤ t < 0.6299: +/- 0.0236	
	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 = max. difference between diagonals (x-y) = 4	
				3050 x 1530 = max. difference between diagonals (x-y) = 4	
				3650 x 1860 = max. difference between diagonals (x-y) = 5	
				4270 x 2130 = max. difference between diagonals (x-y) = 6	
			in	100.39 x 73.23 = max. difference between diagonals (x-y) = 0.1575	
				120.08 x 60.24 = max. difference between diagonals (x-y) = 0.1575	
				143.70 x 73.23 = max. difference between diagonals (x-y) = 0.1969	
				168.11 x 83.86 = max. difference between diagonals (x-y) = 0.2362	
PHYSICAL PROPERTIES					
Resistance to impact by large diameter ball	EN 438-2 : 21	Indentation diameter - 6 ≤ t mm with drop height 1.8 m	mm	≤ 10	
Impact resistance	ASTM D5420-04	Mean failure height	ft	1.0466	
		Mean failure energy	J	11.3	
Dimensional stability at elevated temperature	EN 438-2 : 17	Cumulative dimensional change	Longitudinal %	≤ 0.25	
			Transversal %	≤ 0.25	
Resistance to wet conditions	EN 438-2 : 15	Mass increase	%	≤ 3	
		Appearance	Rating	≥ 4	
	ASTM D2247-02	Water resistance	Rating	No change	
	ASTM D2842-06	Water absorption	%	0.5	
Modulus of elasticity	EN ISO 178	Stress	MPa	≥ 9000	
	ASTM D638-08	Stress	psi	≥ 1305000	
Flexural strength	EN ISO 178	Stress	MPa	≥ 120	
	ASTM D790-07	Stress	psi	≥ 17500	
Tensile strength	EN ISO 527-2	Stress	MPa	≥ 70	
	ASTM D638-08	Stress	psi	≥ 10150	
Density	EN ISO 1183	Density	g/cm^3	≥ 1.35	
	ASTM D792-08	Density	g/cm^3	≥ 1.35	

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				COLOUR/DECOR: ALL[B]	COLOUR/DECOR: ALL[B]
PHYSICAL PROPERTIES					
Resistance to fixings	ISO 13894-1	Pull out strength	N	6 mm: ≥ 2000	
				8 mm: ≥ 3000	
				≥ 10 mm: ≥ 4000	
				0.2362 in: ≥ 2000	
				0.3150 in: ≥ 3000	
				≥ 0.3937 in: ≥ 4000	
OTHER PROPERTIES					
Thermal resistance / conductivity	EN 12524	Thermal resistance / conductivity	W/mK	0.3	
WEATHER RESISTANCE PROPERTIES					
Resistance to climatic shock	EN 438-2 : 19	Flexural strength index (Ds)	Index	≥ 0.80	
		Flexural modulus index (Dm)	Index	≥ 0.80	
		Appearance	Rating	≥ 4	
Resistance to artificial weathering (incl. Light fastness) West European cycle	EN 438-2 : 29	Contrast	Grey scale ISO 105 A02	4-5	
		Appearance	Rating	≥ 4	
Resistance to artificial weathering (incl. Light fastness) Florida cycle 3000hrs	Trespa Standard	Contrast	Grey scale ISO 105 A02	4-5	
		Appearance	Rating	≥ 4	
Resistance to SO_2	DIN 50018	Contrast	Grey scale ISO 105 A02	4-5	
		Appearance	Rating	≥ 4	
FIRE PERFORMANCE					
EUROPE					
Reaction to Fire	EN 438-7	Classification t = 6 mm / 0.2362 in	Euroclass	D-s2, d0	B-s2, d0
		Classification t ≥ 8 mm / 0.3150 in	Euroclass		B-s1, d0
NORTH AMERICA					
Material Surface Burning Characteristics[C]	ASTM E84/ UL 723	Classification	Class	n.a.	A
		Flame Spread Index	FSI	n.a.	0-25
		Smoke Developed Index	SDI	n.a.	0-450
ASIA PACIFIC					
Reaction to Fire (China)	GB 8624	Classification	Class	D-s2, d0	B-s1, d0, t1

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® Meteon® standard delivery programme.

C Laboratory test results are not intended to represent hazards that may be present under actual fire conditions. For multi-story applications, where local or national building codes may require full-scale fire testing in accordance with NFPA 285(U.S.) or Can/ULC-S134 (Canada), please visit our website www.trespa.info or contact your local Trespa representative for more details.

Please note: Trespa® Meteon® is engineered for vertical exterior wall coverings such as façade cladding, balcony panelling as well as horizontal exterior ceiling applications. For other applications please contact your local Trespa representative. Storage, machining, mounting and cleaning instructions are provided by the manufacturer.

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