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).

			RESULTAB		
			GRADE: EDS (METEON®) GRADE: EDF (METEON® FR)		
TEST METHOD	PROPERTY OR ATTRIBUTE	UNIT	STANDARD: EN 438-6	STANDARD: EN 438-6	
			COLOUR/DECOR: ALL ^B	COLOUR/DECOR: ALL ^B	
		mm ² /m ²		≤ 2	
	Spots, dirt, similar surtace detects	in²/ft²	<u>≤</u>	0.0003	
EN 438-2 : 4		mm/m²		≤ 20	
	Fibres, hairs & scratches	in/ft²		≤ 0.073	
1	1		I		
	Thickness	mm	6.0 ≤ t	< 8.0: +/- 0.40	
			8.0 ≤ t < 12.0: +/- 0.50		
			12.0 ≤ t < 16.0: +/- 0.60		
EN 438-2 : 5		in	0.2362 ≤ t < 0.3150: +/-0.0157		
			0.3150 ≤ t < 0.4724: +/- 0.0197		
			0.3130 ≤ 1 < 0.4724. +/* 0.019/ 0.4724 ≤ t < 0.6299: +/* 0.0236		
			0.47 24 51 4		
EN 438-2 : 9	Flatness			≤ 2 < 0.024	
		in/tt		≤ 0.024	
EN 438-2 : 6	Length & width			+ 5 / - 0	
			+ 0	.1968 / - 0	
EN 438-2 : 7	Straightness of edges		≤ 1		
		in/ft	≤ 0.012		
		mm	2550 x 1860 = max. difference between diagonals (x-y) = 4		
	ndard Squareness -		3050 x 1530 = max. difference between diagonals (x-y) = 4		
			3650 x 1860 = max. difference between diagonals (xy) = 5		
Trocpa Standard			$4270 \times 2130 = max.$ difference between diagonals (x-y) = 6		
nespa Siandara			100.39 x 73.23 = max. difference between diagonals (x-y) = 0.157		
			120.08 x 60.24 = max. difference between diagonals (xy) = 0.157		
			143.70 x 73.23 = max. difference between diagonals (x-y) = 0.196		
			168.11 x 83.86 = max. differ	ence between diagonals (x-y) = 0.2362	
EN 438-2 : 21	Indentation diameter - 6 \leq t mm with drop height 1.8 m	mm	≤ 10		
ASTM D5420-04	Mean failure height	ft		1.0466	
	Mean failure energy	J		11.3	
EN 438-2 : 17	Cumulative dimensional change	Longitudinal %		≤ 0.25	
		Transversal %		≤ 0.25	
EN 438-2 : 15	Mass increase	%		≤ 3	
	Appearance	Rating		≥ 4	
ASTM D2247-02	Water resistance	Rating	N	No change	
ASTM D2842-06	Water absorption	%		0.5	
EN ISO 178	Stress	MPa		≥ 9000	
ASTM D638-08	Stress	psi	2	≥ 1305000	
EN ISO 178	Stress	MPa		≥ 120	
ASTM D790-07	Stress	psi	2	≥ 17500	
A31/M D/ 70/0/	1	T 1		≥70	
	Stress	MPa		≥ 70	
EN ISO 527-2	Stress Stress				
	Stress Stress Density	MPa psi g/cm³		≥ 70 ≥ 10150 ≥ 1.35	
	EN 438-2 : 9 EN 438-2 : 6 EN 438-2 : 7 EN 438-2 : 7 EN 438-2 : 7 EN 438-2 : 21 ASTM D542004 EN 438-2 : 17 EN 438-2 : 15 ASTM D2247-02 ASTM D2247-02 ASTM D2247-02 ASTM D2842.06 EN ISO 178 ASTM D638-08	EN 438-2 : 4 Spots, dirt, similar surface defects Fibres, hairs & scratches Fibres, hairs & scratches EN 438-2 : 5 Thickness EN 438-2 : 9 Flatness EN 438-2 : 9 Flatness EN 438-2 : 7 Straightness of edges EN 438-2 : 7 Squareness EN 438-2 : 17 Mean failure neight 1.8 m ASTM D542004 Mean failure neight ASTM D542004 Mass increase EN 438-2 : 17 Cumulative dimensional change EN 438-2 : 17 Mass increase ASTM D242702 Vater resistance ASTM D2424-02 Vater absorption EN 1028-2005 Stress ASTM D548-08 Stress	Index dataIndex dataIndex dataEN 438-2 : 4Spots, dirt, similar surface defects mm^2/m^2 in/fr2Fibres, hairs & scratches mm/m^2 in/fr2EN 438-2 : 5Thicknessmm/mEN 438-2 : 9Flatnessmm/mEN 438-2 : 9Flatnessmm/mEN 438-2 : 7Straightness of edgesmm/mEN 438-2 : 7Straightness of edgesmm/mEN 438-2 : 7Straightness of edgesmm/mEN 438-2 : 7Straightness of edgesin/ftEN 438-2 : 7Straightness of edgesin/ftEN 438-2 : 10Mean failure heightftASTM D542004Mean failure energyJEN 438-2 : 17Cumulative dimensional changeTransversal %EN 438-2 : 17Mass increase%EN 438-2 : 15Mass increase%ASTM D242/02Water absorption%ASTM D242/04Water absorption%ASTM D2842066StressMPaASTM D2842068StressMPa	TEST METHODPROPERTY OR ATTRIBUTEUNITGRADE: EDS (METEON*) STANDARD: EN 438-6 COLOUR/DECOR: ALL*EN 4382 : ASpot, dir, similar surface defects mm^2/m^2 mm/m^2 EN 4382 : ASpot, dir, similar surface defects mm/m^2 mm/m^2 Fibres, hairs & scratches mm/m^2 mm/m^2 EN 4382 : SThickness mm/m^2 $(0.0 \le 1)$ EN 4382 : SThickness mm/m $0.0 \le 1 \le 1$ EN 4382 : OEngli & widh mm/m $(0.0 \le 1)$ EN 4382 : OIengh & widh mm/m $(0.0 \le 1)$ EN 4382 : OIengh & widh mm/m $(0.0 \ge 1)$ EN 4382 : OIengh & widh mm/m $(0.0 \ge 1)$ EN 4382 : OIengh & widh mm/m $(0.0 \ge 1)$ Trespo StandardSporeness in/ft $(0.0 \ge 1) \times 20$ Fue 4382 : 12Indentation diameter - 6 s t mm mm $(0.0 \ge 1) \times 20$ Fue 4382 : 12Indentation diameter - 6 s t mm mm $(0.0 \ge 1) \times 20$ Fue 4382 : 12Indentation diameter - 6 s t mm mm $(0.0 \ge 1) \times 20$ Fue 4382 : 12Indentation diameter - 6 s t mm mm $(0.0 \ge 1) \times 20$ Fue 4382 : 17Cumulative dimensional change $(0.0 \ge 1) \times 20$ $(0.0 \ge 1) \times 20$ EN 4382 : 17Mass increase $\%$ $(0.0 \ge 1) \times 20$ Fue 4382 : 17Mass increase $\%$ $(0.0 \ge 1) \times 20$ ASTM D524020Water resistanceRating $(0.0 \ge 1) \times 20$ ASTM D234020Water resistance $\%$ $(0.0 \ge 1) \times 20$	

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PROPERTIES TE		PROPERTY OR ATTRIBUTE		RESULTAB		
	TEST METHOD			GRADE: EDS (METEON®)	GRADE: EDF (METEON® FR	
			UNIT	STANDARD: EN 438-6	STANDARD: EN 438-6	
				COLOUR/DECOR: ALL ⁸	COLOUR/DECOR: ALL ^B	
PHYSICAL PROPERTIES		· · · · · · · · · · · · · · · · · · ·				
Resistance to fixings		Pull out strength	Ν	6 mm: ≥ 2000		
	ISO 13894-1			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) Tre Florida cycle 3000hrs	Trespa Standard	Contrast	Grey scale ISO 105 A02	4-5		
	Trespa Standara	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, dO	
		Classification t ≥ 8 mm / 0.3150 in	Euroclass		B-s1, dO	
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.

