

## Material Property Datasheet

# TRESPA METEON

Decorative high-pressure compact laminates according to EN 438-6:2005 with thicknesses of 6 mm ( $\pm 1/4$  in) or greater for outdoor applications.

Sheets consisting of layers of wood-based fibers (paper and/or wood) impregnated with thermosetting resins and surface layer(s) on one or both sides, having decorative colors or designs. A transparent topcoat is added to the surface layer(s) and cured by Trespas' 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 ( $\geq 150^\circ\text{C}$  /  $\geq 302^\circ\text{F}$ ) and high specific pressure ( $> 7\text{ Mpa}$ ) to obtain a homogeneous non-porous material with increased density and integral decorative surface. When they are self-supporting, exterior-grade compact laminates are ready for installation and only require cutting to size, drilling, etc. to suit the application. 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 <sup>(A)</sup>				
				Grade: EDS (Meteon) Standard: EN 438-6 Color/decor: All <sup>(B)</sup>	Grade: EDF (Meteon FR) Standard: EN 438-6 Color/decor: All <sup>(B)</sup>			
Surface quality								
Surface quality	EN 438-2 : 4	Spots, dirt, similar surface defects	mm <sup>2</sup> /m <sup>2</sup> in <sup>2</sup> /ft <sup>2</sup>		$\leq 2$ $\leq 0.0003$			
		Fibers, hairs & scratches	mm/m <sup>2</sup> in/ft <sup>2</sup>		$\leq 20$ $\leq 0.073$			
Dimensional tolerances								
Dimensional tolerances	EN 438-2 : 5	Thickness	mm		6.0 $\leq t <$ 8.0: +/- 0.40 8.0 $\leq t <$ 12.0: +/- 0.50 12.0 $\leq t <$ 16.0: +/- 0.60			
			in		0.2362 $\leq t <$ 0.3150: +/- 0.0157 0.3150 $\leq t <$ 0.4724 : +/- 0.0197 0.4724 $\leq t <$ 0.6299: +/- 0.0236			
	EN 438-2 : 9	Flatness	mm/m in/ft		$\leq 2$ $\leq 0.024$			
	EN 438-2 : 6	Length & width	mm in		+ 5 / - 0 + 0.1968 / - 0			
	EN 438-2 : 7	Straightness of edges	mm/m in/ft		$\leq 1$ $\leq 0.012$			
	Trespa Standard	Squareness	mm			2550 x 1860 = diagonals length of 3156 +/- 13 3050 x 1530 = diagonals length of 3412 +/- 14 3650 x 1860 = diagonals length of 4097 +/- 17 4270 x 2130 = diagonals length of 4772 +/- 20		
				in			100.39 x 73.23 = diagonals length of 124.25 +/- 0.5118 120.08 x 60.24 = diagonals length of 134.33 +/- 0.5512 143.70 x 73.23 = diagonals length of 161.30 +/- 0.6693 168.11 x 83.86 = diagonals length of 187.87 +/- 0.7874	
					Radius inside/ outside corner	mm	n.a.	970 / 980 +/- 5%
						in	n.a.	1290/1300 +/- 5% 38.19 / 38.58 +/- 5%
					Max. height	mm	n.a.	50.79 / 51.18 +/- 5%
						in	n.a.	r 970/980: 1300 (-0/+5) r 1290/1300: 1300 (-0/+5) r 38.19 / 38.58: 51.18 (-0/+5) r 50.79 / 51.18: 51.18 (-0/+5)
		Max. angle (°)			n.a.	90 +/- 0.5°		
Physical properties								
Resistance to impact by large diameter ball	EN 438-2 : 21	Indentation diameter - $6 \leq t$ mm with drop height 1.8 m	mm		$\leq 10$			
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 %		$\leq 0.25$			
			Transversal %		$\leq 0.25$			
Resistance to wet conditions	EN 438-2 : 15	Mass increase	%		$\leq 3$			
	ASTM D2247-02 ASTM D2842-06	Appearance	Rating		$\geq 4$			
		Water resistance	Rating		No change			
		Water absorption	%		0.5			
Modulus of elasticity	EN ISO 178	Stress	Mpa		$\geq 9000$			
	ASTM D638-08	Stress	psi		Curved Elements: $\geq 8000$ $\geq 1305000$			
Flexural strength	EN ISO 178	Stress	Mpa		$\geq 120$			
	ASTM D790-07	Stress	psi		$\geq 17500$			
Tensile strength	EN ISO 527-2	Stress	Mpa		$\geq 70$			
	ASTM D638-08	Stress	psi		$\geq 10150$			
Density	EN ISO 1183	Density	g/cm <sup>3</sup>		$\geq 1.35$			
	ASTM D792-08	Density	g/cm <sup>3</sup>		$\geq 1.35$			
Resistance to fixings	ISO 13894-1	Pull out strength	N		6 mm: $\geq 2000$ 8 mm: $\geq 3000$ $\geq 10$ mm: $\geq 4000$ 0.2362 in: $\geq 2000$ 0.3150 in: $\geq 3000$ $\geq 0.3937$ in : $\geq 4000$			

<sup>(A)</sup> Due to conversion from metric values, the US values provided are approximate.

<sup>(B)</sup> All data are related to the products mentioned in the Trespa Meteon standard delivery program.

<sup>(C)</sup> Availability limited – contact your local Trespa representative for more details.

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				Grade: EDS (Meteon) Standard: EN 438-6 Color/decor: All <sup>Ⓒ</sup>	Grade: EDF (Meteon FR) Standard: EN 438-6 Color/decor: All <sup>Ⓒ</sup>
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		≥ 0.95
		Flexural modulus index (Dm)	Index		≥ 0.95
		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 <sup>Ⓓ</sup>
			Grey scale ISO 105 A03		4-5
		Appearance	Rating		≥ 4
Resistance to artificial weathering (incl. Light fastness) <sup>Ⓔ</sup> Florida cycle 3000hrs	Trespa Standard	Contrast	Grey scale ISO 105 A02		4-5 <sup>Ⓓ</sup>
			Grey scale ISO 105 A03		4-5
		Appearance	Rating		≥ 4
Resistance to SO <sub>2</sub>	DIN 50018	Contrast	Grey scale ISO 105 A02		4-5 <sup>Ⓓ</sup>
			Grey scale ISO 105 A03		4-5
		Appearance	Rating		≥ 4
Fire performance					
Europe					
Reaction to Fire	EN 438-7	Classification t ≥ 6 mm / 0.2362 in	Euroclass		B-s2, d0
		Classification t ≥ 8 mm / 0.3150 in (Metal Frame)	Euroclass	D-s2, d0	B-s1, d0
Reaction to Fire (Germany)	DIN 4102-1	Classification	Class	B2	B1
Reaction to Fire (France)	NF P 92-501	Classification	Class	M3	M1
North America					
Material Surface Burning Characteristics	ASTM E84/UL 723	Classification	Class	n.a.	A <sup>Ⓔ</sup>
		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

<sup>Ⓐ</sup> Due to conversion from metric values, the US values provided are approximate.

<sup>Ⓑ</sup> All data are related to the products mentioned in the Trespa Meteon standard delivery program.

<sup>Ⓒ</sup> Not valid for following colors: A04.0.1/ A08.8.1/A10.3.4/A10.1.8/ A20.2.3/A30.3.2/A36.3.5/A17.3.5/ M18.7.2/A04.1.7/ A12.3.7/ A18.3.5 and decors NA/NW.

For other applications/colors such as project colors, please contact your local Trespa representative.

<sup>Ⓓ</sup> For more information on Delta E values, please contact the Technical Service Department of Trespa North America at 1-800-487-3772.

<sup>Ⓔ</sup> 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](http://www.trespa.info) or contact the Technical Service Department of Trespa North America at 1-800-487-3772 for installation information.

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

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