E|S Architectural Cladding Systems

Test	Standard	Field	Unit	HPL
Surface quality	EN 438-2-4	Stain, dirtand similar defects	mm2/m2	<= 2
Dimensional tolerances	EN 438-2-5	6 < e <16	mm	tol. +/- 0,6
Flatness of panel	EN 438-2-9	8 <= e -	mm/m	<= 2
Length and width	EN 438-2-6	Plate	mm	tol. +5/- 0
Straightness of edges	EN 438-2-7	Plate	mm / m	<= 1
Squareness	EN 439-2-8	Difference between diagonals	mm	+/- 3 mm
Impact resistance (large diameter ball)	EN 438 2-21	Indentation diameter	1.800 mm height	<= 8
Impact resistance	ASTM D54200-04	Height of failure	ft	1,1
		Energy of failure	J	12,6
Dimensional stability at elevated temperatures	EN 438 2-17	Longitudinal and Transversal	%	<= 0,25
Moisture resistance	EN 438 2-15	Mass gain	%	<= 3
		Appearance	Grade	>= 4
Modulus of elasticity	EN-ISO178	Longitudinal and Transversal	MPA	> 9820
Flexural strength	EN-ISO178	Longitudinal and Transversal	MPA	> 150
Tensile strength	EN-ISO527-2	Longitudinal and Transversal	MPA	>70
Density	ISO 1183	Mass	g/cm3	>= 1,4
Screw retention	ISO 13894 -1	6-10mm thickness	N	>= 3000
Resistance to climate shock	EN4382-19	Appearance	Grade	4
		Flexural Strength Index	Index	1,02
		Flexural Modulus Index	Index	0,97

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Test	Standard	Field	Unit	HPL
Resistance to artificial weathering (including light fastness)	EN4382-29	Contrast	Gray Scale	4-5 (After radiant exposure of 650 MJ/m2, 3.000 h. Exposure)
		Appearance	Grade	>= 4 (After radiant exposure of 650 MJ/m2, 3.000 h. Exposure)
UV Light Resistance	EN438-2-28 ISO4892-3	Contrast	Gray Scale	4-5 (3.000 h. Exposure)
		Appearance	Grade	>= 4 (3.000 h. Exposure)
Resistance to artificial aging/ SO2 resistance	DIN 50018	Contrast	Gray Scale ISO 105 A02	4-5
		Appearance	Gray Scale ISO 105 A02	>=4
Fire reaction	EN 438-7	>= 6	Unit	B-s2,d0
	EN 13501-1	>= 10		B-s1, d0
Fire reaction(Germany)	DIN 4102-1	Classification	Class	B1
Formaldehyde emissions	UL 2818-2013	Formaldehyde	ppm	< 0,005
	EN 438-7-2015			E1
Resistance / Thermal conductivity	EN 12524	-	W/m.k	0,3
Lineal thermal expansion	ISO 10545-8	Longitudinal	1/K	1,6 x 10-5
		Transversal	1/K	3,4 x 10-5

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