

**Summary Testing Certificate - Resysta Material**



No.	Properties	Method	Result
1	Density	ISO 1183	1.46 g/cm <sup>3</sup>
2	Hardness	ASTM D2240 : Shore D Hardness Test	88 Shore D
3	Flexural Properties	a) ASTM D790-03 Determination of Flexural Strength Profile : 140 mmx 38 mm	28.24 Mpa
		b) ISO 178 - Determination of Flexural Properties Flexural Strength	46 MPa
		c) ISO 178 - Determination of Flexural Properties Flexural Modulus	3850 MPa
		d) ISO 178 - Determination of Flexural Properties Flexural Strain At Break	2.50%
4	Shear Strength	STMS-2774 Shear Strength Profile : 140 mmx 38 mm	12.82 MPa
5	Compressive Strength	ASTM D695-08 Compressive Strength Profile : 140 mmx 38 mm	39.40 MPa
6	End Bearing Test	End Bearing Test Profile : 140 mmx 38 mm	12488 N
7	Nail Pull Off Test	STMS -2775 Pull Off Test Profile : 140 mmx 38 mm	6009 N
8	Slip Resistance	a) ASTM C1028-7 The Static Coefficient of Friction Dry Condition Wet Condition	0.78 kgf 0.89 kgf
		b) ASTM E303:1993 (2008) Skid Resistance <b>Non Coating</b> Vertical Horizontal <b>Coating</b> Vertical Horizontal	55 units 71 units 52 units 47 units
		c) DIN 51097 -Testing of floor coverings; determination of slip resistance; barefoot areas exposed to wet.	Classification C
		d) AS 4586:2013 Slip Resistance (Wet Pendulum Test)	Slider 96 : Class P3 Slider 55 : Class P5
		e) AS 4586:2013 Slip Resistance (Wet Pendulum Test)	Slider 96 : Class P5
		9	Resistance to Fungus/Bio
10	Fire Behaviour	a) DIN 4102-1 (May 1998) Flammability (Building Material Class B1)	Class B1
		b) DIN EN 1350-1 : 2007 Fire classification of construction products and building elements - Part 1	Class E
		c) ASTM E84-09 Surface Burning Characteristic of Building Materials	Class A
		d) BS 476 Part 6:1989+A1: 2009 - Fire Propagation Test Sub Index1 Sub Index2 Sub Index3 Fire Propagation Index I BS 476 Part 7:1997 - Fire Classification	1.01 0.89 0.47 2.37 Class 1
		Building Regulation 2006 Approved Document B, UK Requirements : Propagation Index I < 12 ; Sub Index < 6	Class 0
		e) ASTM E84-09 Surface Burning Characteristic of Building Materials for CP140(FR)	Class A
		f) EN13501 : 2007 Fire Classification of Construction Products and Building Elements	Class B, s2, d0
		g) AS 1530.8.1-2007 Bush Fire Test	BAL 40
		h) AS 1530.8.1-2007 Bush Fire Test Naxan DKG 12522 Naxan DKN 12520/9020/14020 Naxan DKG14025/18025 Naxan DKG5.5/1 Naxan DKG14038	BAL 40
		i) IMO FTD Code Annex 1, Part 5 FP200/5 NT & FP20012 NT	Passed
11	Chemical Analysis	a) RoHS Compliance Test Cd (<100 ppm) Lead (<1000 ppm) Mercury (<1000 ppm) Hexavalent Chromium Cr+6 (<1000 ppm)	Not Detectable Not Detectable Not Detectable Not Detectable
		b) Substances of Very High Concern (SVHC) Compliance 168 substances <0.1% (REACH)	All Not Detectable
12	Accelerated Weathering	QUV	No obvious changes
		a) 1200 Hrs b) 500 Hrs, 1000 Hrs, 1500 Hrs	
		c) Xenon - EPH ZwB 2000h	Obviously changes

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13	Tensile Properties	a) ISO 527 - Determination of Tensile Properties Tensile Strength (Max.)	21.8 MPa
		b) ISO 527 - Determination of Tensile Properties Elongation At Break	2.20%
		c) ISO 527 - Determination of Tensile Properties Tensile Modulus	2340 MPa
14	Impact Properties	ISO 180 - Determination of Izod Impact Strength	
		Notch, ISO 180/1eA	2.65 kJ/m <sup>2</sup>
		Unnotch, ISO 180/1eU	5.99 kJ/m <sup>2</sup>
15	Thermal Expansion Coefficient	ISO 11359 - Determination of Linear Thermal Expansion Coefficient	218 - 254 x 10 <sup>-6</sup> 1/K
16	Heat Deflection	ISO 75 - Determination of Heat Deflection Temperature	62 °C
17	Water Absorption	ISO 62- Determination of Water Absorption	
		6 Hrs	0.73%
		32 Hrs	1.12%
		124 Hrs	1.85%
18	MIE	BS EN 13821:2001 - Determination of Minimum Ignition Energy (MIE)	
		a) Sanding Dust	250 mJ to 500 mJ
		b) ARF Material	30mJ to 100 mJ
		b) Resysta Compound	> 1000 mJ
19	Food Safety Test	a) European commission regulation NO. 10/2011 and regulation 1935/2004 on overall migration	Pass
		b) European commission regulation NO. 10/2011 annex II and regulation 1935/2004 on specific migration of metal content	Pass
		c) Europe commission regulation No. 10/2011 and regulation 1935/2004 on phthalate content	Pass
		d) European commission regulation NO. 10/2011 on specific migration of Phthalate content	Pass
		e) Commission Regulation(EU) NO. 10/2011 on specific migration of Vinyl Chloride Monomer	Pass
		f) European commission regulation NO. 10/2011 on specific migration of Bisphenol A	Pass
20	Termite Resistance Test	(ASTM D3345-08 standard)	Highly durable against the subterranean termite
21	Solar Reflectance Index	a) Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.	35.90%
		b) Determination of Solar Reflectance Near Ambient Temperature Using a Portable Solar Reflectometer.	29%
22	Radiant Flux	ASTM E648-10e1 "Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source".	1.03 Watts/cm <sup>2</sup>
23	Janka Hardness Test	BS373 - Janka Hardness Test Load @ 5.64mm. Indentation (kN)	13.07 kN