



ECONOMY ♦ EXCELLENCE ♦ ETHICS

Test Values of FR Grade HPL as per EN 438 -3:2016 +A1

Product: FR+

Size: 1300 x 3050 x 0.70 mm

Finish: Suede

Property	Test Method as EN:438 -2:2016+A1	Property or Attribute	Unit of Measurement (max or min)	Standard values as per EN:438 -3:201 9 (E)	Merino Values
Thickness Tolerance	5	Dimension	mm	±0.10	±0.03
Length and Width Tolerance	6	Dimension	mm	+ 10mm	+04mm
				-0mm	-0mm
Density	EN ISO 1183		g/cm ³	≥ 1.35	1.38
Resistance to Surface wear	10	Wear Resistance	Revolution(min) (IP)	150	275
Resistance to Immersion in boiling water	12	Appearance	Grade (min)	Rating 3	Rating -5
			Gloss	≥ Rating -3	
			Other finishes	≥ Rating -4	
Resistance to Water vapour	14	Appearance	Grade (min)	Rating 3	Rating -5
			Gloss	≥ Rating -3	
			Other finishes	≥ Rating -4	
Resistance to Dry Heat (180°)	16	Appearance	Grade (min)	Rating 3	Rating -5
			Gloss	≥ Rating -3	
			Other finishes	≥ Rating -4	
Dimensional Stability at Elevated temp. (Max %)	17	Cumulative dimensional change	% Machine Direction	≤ 0.55%	0.42
			% Cross Direction	≤ 1.05%	0.67
Resistance to Impact (small dia ball)	20	Spring Force	N(min)	≥ 20 N	30N
Resistance to Impact (Large dia ball)	21	Drop Height max indentation	mm/mm	>800 mm	>1200 mm
				10 mm	8
Resistance to cracking	23	Appearance	Grade (min)	≥ Rating -4	Rating -5
Resistance to Scratching	25	Force N (min)	Grade (min)	≥ Rating -2	Rating -3
Resistance to Stains	26	Appearance	Group 1 & 2	≥ Rating -5	Rating -5
			Group 3	≥ Rating -4	Rating -4
Light Fastness (Contrast)	27	Grey Scale	Grade	4 to 5	5
Flame Spread Index	ASTM E-84 :10	Classification		Class -A 0-25	21
Smoke Developed Index	ASTM E -84 :10	Classification		Class -A 0-450	228

Note: All our products comply with applicable standards, but results may differ based on the application and handling of the product. Please Refer <http://www.merinolaminates.com/warranties.aspx> for warranty clauses.