LAMICOLOR®

LAMCO HPL STANDARD (HGS-VGS)

Material consisting of layers of kraft paper impregnated with thermosetting resins and a surface layer of decorative paper impregnated with aminoplastic resins, all bonded together by means of high pressure (9 Mpa) and high temperature (150°C). It is also available in flame retardant version, where fire retardant additives are mixed to phenolic resins.This material is produced in conformity to EN 438-3:2005.

PROPERTY	TEST METHOD (EN 438: 2005)	PROPERTY OR ATTRIBUTE	UNIT	VALUES HGS-HGF	VALUES VGS-VGF
Thickness ± tolerance	EN 438-2.5	thickness (t)	mm	0,5 ≤ t ≤ 1,0 ±0,10 1,0 < t < 2,0 ±0,15	0,5 ≤ t ≤ 1,0 ±0,10 1,0 < t < 2,0 ±0,15
Flatness	EN 438-2.9	maximum deviation	mm/mtl	60	60
Resistance to surface wear	EN 438-2.10	wear resistance	revs	IP ≥ 150 A ≥ 350	IP ≥ 50 A ≥ 150
Resistance to immersion in boiling water	EN 438-2.12	appearance gloss finish appearance other finishes	rating	≥ 3 ≥ 4	≥ 3 ≥ 4
Resistance to dry heat (180°C)	EN 438-2.16	appearance gloss finish appearance other finishes	rating	≥ 3 ≥ 4	≥ 3 ≥ 4
Resistance to wet heat (100°C)	EN 12721	appearance gloss finish appearance other finishes	rating	≥ 3 ≥ 4	≥ 3 ≥ 4
Dimensional stability at elevated temperature	EN 438-2.17	cumulative dimensional change	% long. % transv.	≤ 0,55 ≤ 1,05	≤ 0,75 ≤ 1,25
Resistance to impact by small diameter ball	EN 438-2.20	spring force	N	≥ 20	≥ 15
Resistance to cracking	EN 438-2.23	appearance	rating	≥ 4	≥ 4
Resistance to scratching(1)	EN 438-2.25	force	rating	≥ 3	≥2
Resistance to staining	EN 438-2.26	app. groups 1-2 appear. groups 3	rating	5 ≥ 4	5 ≥ 4
Lightfastness	EN 438-2.27	contrast	grey scale rating	≥ 4	≥ 4
Resistance to cigarette burns	EN 438-2.30	appearance	rating	≥ 3	≥ 3
Resistance to water vapour	EN 438-2.14	appearance gloss finish appearance other finishes	rating	≥ 3 ≥ 4	≥ 3 ≥ 4
Electrical resistance	NF PA 99	-	Ohm	10^{8} - 10^{11}	10^{8} - 10^{11}
Volume electrical resistance	EN 61340-4-1	R_V (23°C /50% RH)	Ohm	10^{9} - 10^{11}	10^{9} - 10^{11}
Density	ISO 1183	density	gr/cm^3	≥ 1,40	≥ 1,40

(1) Resistance to scratching is depending from finish and colour.
Note: The colour of individual lots may vary as a result of the technology and tyte of pigment used. Pay attention to the direction of the texture.

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FIRE PERFORMANCE

TEST METHOD	STANDARD	CLASSIFICATION	
		HGF/VGF	HGS/VGS
Small flame and radiant panel	UNI 8457 UNI 9174 UNI 9177	class 1	class 2
Spread of flame	BS 476-7	class 1	class 2
Brandschacht	DIN4102-1	B1	B2
Epiradiateur	NF P 92-501	M1	min. M3
Smoke density and toxicity	NF F 16-101	min F2	min F2
Heat release	IMO Res. A 653(16)	pass	pass

Note: Fire test performance will depend on laminate thickness and construction, substrate type and thickness, and adhesive used.