

**LAMCO HPL STANDARD (HGS-HGF)**

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 ( 7 Mpa) and high temperature ( 130°C). It is also available in HGF version, where fire retardant additives are mixed to kraft paper. This material is produced in conformity to EN 438-3.

PROPERTY	TEST METHOD (EN 438: 2016)	PROPERTY OR ATTRIBUTE	UNIT	VALUES HGS-HGF
<b>Thickness</b>	EN 438-2.5	thickness (t)	mm	0,5 t 1,0 ±0,10 1,0 < t < 2,0 ±0,15
<b>Flatness<sup>(1)</sup></b>	EN 438-2.9	maximum deviation	mm/m	60
<b>Resistance to surface wear</b>	EN 438-2.10	wear resistance	revolutions	IP ≥ 150
<b>Resistance to immersion in boiling water</b>	EN 438-2.12	appearance	rating gloss finish other finishes	≥ 3 4
<b>Resistance to dry heat (160°C)</b>	EN 438-2.16	appearance	rating gloss finish other finishes	≥ 3 ≥ 4
<b>Resistance to wet heat (100°C)</b>	EN 438-2.18	appearance	rating gloss finish other finishes	≥ 3 ≥ 4
<b>Dimensional stability at elevated temperature</b>	EN 438-2.17	cumulative dimensional change	% long. % transv.	≤ 0,55 ≤ 1,05
<b>Resistance to impact by small diameter ball</b>	EN 438-2.20	spring force	N	≥ 20
<b>Resistance to cracking</b>	EN 438-2.23	appearance	rating	≥ 4
<b>Resistance to scratching<sup>(2)</sup></b>	EN 438-2.25	force	rating smooth finishes textured finishes	≥ 2 ≥ 3
<b>Resistance to staining</b>	EN 438-2.26	appearance	rating groups 1 & 2 groups 3	5 ≥ 4
<b>Lightfastness</b>	EN 438-2.27	contrast	grey scale rating	≥ 4
<b>Resistance to water vapour</b>	EN 438-2.14	appearance	rating gloss finish other finishes	≥ 3 ≥ 4
<b>Electrical resistance</b>	EN 61340-4-1	R <sub>v</sub> (23°C /50% RH)	Ohm	10 <sup>9</sup> - 10 <sup>11</sup>
<b>Density</b>	ISO 1183	density	gr/cm <sup>3</sup>	≥ 1,35

(1) Provided that the laminates are stored in the manner and conditions recommended in our manual of technical information.

(2) Resistance to scratching is depending from finish and colour.

Note: The colour of individual lots may vary as a result of the technology and type of pigment used.

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**FIRE PERFORMANCE**

TEST METHOD	STANDARD	CLASSIFICATION <sup>(3)</sup>	
		HGF	HGS
Small flame and radiant panel	UNI 8457 UNI 9174 UNI 9177	class 1	class 1
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

(3) The reported classifications are just indicative: fire test performance will depend on laminate thickness and construction, substrate type and thickness, and adhesive used. The fire classification of the composite panel is under the responsibility of the manufacturer of the final composite.