

## INFORMATIVE TECHNICAL SHEET PRINT HPL POLARIS

Decorative laminate consisting of cellulose layers impregnated with thermosetting resins and an acrylic surface radiation cured, all bonded together by means of the simultaneous application of heat and pressure within an high pressure lamination process.

PROPERTY	TEST METHOD EN 438: 2005	PROPERTY or ATTRIBUTE	UNIT	LAMINATE GRADE				
				Black core		Full-Colour		
				Guaranteed performance	Typical performance	Guaranteed performance	Typical performance	
Thickness	EN 438-2.5	Thickness (t)	mm	$\begin{array}{cccc} t = 0.9 \pm 0.10 & t = 0.9 \pm 0.15 \\ t = 1.2 \pm 0.15 & t = 1.2 \pm 0.18 \\ t = 10 \pm 0.50 & t = 10 \pm 0.70 \\ t = 12 \pm 0.60 & t = 12 \pm 0.80 \end{array}$			± 0.15 ± 0.18 ± 0.70 ± 0.80	
Flatness	EN 438-2.9	Maximum deviation *	mm/m	$\begin{array}{cccc} t = 0.9 \rightarrow 60 & t = 0.9 \rightarrow 100 \\ t = 1.2 \rightarrow 60 & t = 1.2 \rightarrow 100 \\ t = 10 \rightarrow 5.0 & t = 10 \rightarrow 8.0 \\ t = 12 \rightarrow 3.0 & t = 12 \rightarrow 5.0 \end{array}$				
Length and width	EN 438-2.6	Length and width	mm	+ 10 / 0				
Straightness of edges	EN 438-2.7	Straightness of edges	mm/m	≤ 1.5				
Squareness	EN 438-2.8	Squareness	mm/m	≤ 1.5				
Resistance to surface wear	EN 438-2.10	Wear resistance	Revolutions Initial point Wear value	150 350	300 500	150 350	300 500	
Resistance to scratching	EN 438-2.25	Force	Rating (min)	5	5	5	5	
Resistance to immersion in boiling water	EN 438-2.12	Mass increase	% (max) 2 ≤ t < 5 mm t ≥ 5 mm	5 2	2 1	5 3	3 2	
		Thickness increase	% (max) 2 ≤ t < 5 mm t ≥ 5 mm	6 2	2 1	6 4	3 2	
		Appearance	Rating (min)	4	5	4	5	
Resistance to water vapour	EN 438-2.14	Appearance	Rating (min)	4	5	4	5	
Resistance to dry heat (180 ℃)	EN 438-2.16	Appearance	Rating (min)	4	5	4	5	
Resistance to wet heat (100 ℃)	EN 438-2.16	Appearance	Rating (min)	4	5	4	5	
Dimensional stability at elevated temperature	EN 438-2.17	Cumulative dimensional change	% (max.) L t < 2 mm T	0.55 1.05	0.40 0.80	0.80 1.40	0.50 1.00	
			t≥5mm L T	0.30 0.60	0.20 0.30	0.50 0.80	0.20 0.30	

\* Provided that the laminate is stored in the manner and conditions recommended by the manufacturer.

ABET LAMINATI

#### Unlimited selection

## INFORMATIVE TECHNICAL SHEET PRINT HPL POLARIS

Date of release: October 2015

PROPERTY	TEST METHOD EN 438: 2005	PROPERTY or ATTRIBUTE	UNIT	LAMINATE GRADE			
				Black core		Full-Colour	
				Guaranteed performance	Typical performance	Guaranteed performance	Typical performance
Thickness	EN 438-2.5	Thickness (t)	mm	$t = 0.9 \pm 0.10$ $t = 1.2 \pm 0.15$ $t = 10 \pm 0.50$ $t = 12 \pm 0.60$		$t = 0.9 \pm 0.15$ $t = 1.2 \pm 0.18$ $t = 10 \pm 0.70$ $t = 12 \pm 0.80$	
Resistance to crazing	EN 438-2.24	Appearance	Rating (min)	4	4	surface 4 core 3 <sup>a</sup>	surface 4 core 3 <sup>a</sup>
Resistance to staining	EN 438-2.26	Appearance	Rating (min) Groups: 1 and 2 3	5 4	5 4	5 4	5 4
Light fastness (xenon arc)	EN 438-2.27	Contrast	Grey scale rating (min)	4	4	surface 4 core 3 <sup>b</sup>	surface 4 core 3 <sup>a</sup>
Resistance to cigarette burns	EN 438-2.30	Appearance	Rating (min)	3	3	3	3
Flexural strength	EN ISO 178	Stress	Stress MPa (min)	80	110	80	110
Flexural modulus	EN ISO 178	Stress	Stress MPa (min)	9000	10000	9000	10000
Gloss	ISO 2813	Gloss	Gloss unit at 60° (g.u.)	4 + [-1/+ 2]	4 ± 1	4 + [-1/+ 2]	4 ± 1
Density	ISO 1183-1	Density	g/cm <sup>3</sup> (min)	1.35	1.5	1.4	1.5

<sup>a</sup> The moderate cracks lines run along all the edge of the specimen.

<sup>b</sup> Extraneous darkening and/or photocromism are due to the shock effect of accelerated exposure and are not characteristics of natural exposure.

P.N.

Background decors on the up-side belonging also to further swatches, may show variations in tone due to the particular composition, which is necessary for the manufacturing of Full-Colour. The slight difference in tone (covering) must not be considered as a defect because it is due to a different colour of the core (kraft).



# INFORMATIVE TECHNICAL SHEET PRINT HPL POLARIS

### **INFORMATION AND GENERAL ADVICE**

### 2-decor-version

Transport and storage: Panels must be laid flat and stacked in neat piles with no overlapping.

**Cutting**: The cutting of panels should only be carried out with fixed circular saws, accurately adjusting the blade height to avoid chipping the bottom edge of the panel. For optimal results, use a scoring blade together with the cutting blade. Portable saws and belt are not recommended for this operation. The panel must be cut so that the longitudinal sense represents the long side of the piece.

**Drilling:** It is recommended that holes be drilled with a diameter approx. 2.0 mm larger that that of the screws. It is important to ensure that the holes be drilled accurately in terms of both side and quality, so as to avoid the spread of cracks resulting from the holes themeselves. This is necessary considering the slight dimensional variations of the panels, which can occur following normal changes in ambient temperature and humidity.

Fretworking: It is vital to cut round edges with great care so as to avoid chipping on both sides of the panel.