

A.BAC | COMPACT

MATERIAL PROPERTIES DATA SHEET

A.BAC COMPACT is a high pressure decorative laminates (HPL), having thickness 2 mm or greater, according to EN 438-1:2016, EN 438-2:2016 and EN 438-4:2016. The core is composed of layers of kraft paper impregnated with thermosetting resins. The decorative surfaces in both sides are made of paper impregnated with aminoplastic thermosetting resins. All the layers are bonded together by a high pressure and high temperature process to obtain a high density homogeneous non-porous material.

A.BAC COMPACT innovative surface recipe is designed to inhibit the growth of bacteria across its whole surface. Laboratory testing has proven the prevention of bacterial growth, even in case of bacteria such as Staphylococcus Aureus and Escherichia Coli responsible for several difficult-to-treat infections. A.BAC COMPACT is suitable for food contact and hygienic applications such as hospitals, surgeries, pharmacies, food processing areas and clean rooms.

PROPERTIES	TEST METHOD	PROPERTY OR ATTRIBUTE	VALUES	UNIT
GENERAL PROPERTIES				
Surface quality	EN 438-2:2016 Par. 4	Spots, dirt and similar surface defects Fibers, hair and scratches	≤ 1 ≤ 10	mm ² /m ² mm/m ²
Dimensional tolerances	EN 438-2:2016 Par. 5	Thickness ⁽¹⁾	± 0,20 2,0 ≤ t < 3,0 ± 0,30 3,0 ≤ t < 5,0 ± 0,40 5,0 ≤ t < 8,0 ± 0,50 8,0 ≤ t < 12,0 ± 0,60 12,0 ≤ t < 16,0	mm
	EN 438-2:2016 Par. 6	Length and width	+ 10 / - 0	mm
	EN 438-2:2016 Par. 7	Straightness of edges	≤ 1,5	mm/m
	EN 438-2:2016 Par. 8	Squareness	≤ 1,5	mm/m
	EN 438-2:2016 Par. 9	Flatness (measured on full-size sheet)	≤ 8,0 2,0 ≤ t < 6,0 ≤ 5,0 6,0 ≤ t < 10,0 ≤ 3,0 t ≥ 10,0	mm/m
PHYSICAL PROPERTIES				
Resistance to immersion in boiling water	EN 438-2:2016 Par. 12	Mass increase	≤ 5 2,0 ≤ t < 5,0 ≤ 2 t ≥ 5,0	%
		Thickness increase	≤ 6 2,0 ≤ t < 5,0 ≤ 2 t ≥ 5,0	%
		Surface appearance	≥ 3 gloss finish ≥ 4 other finishes	Rating
		Edge appearance	≥ 3	Rating
Dimensional stability at elevated temperatures	EN 438-2:2016 Par. 17	Cumulative dimensional change	≤ 0,4 2,0 ≤ t < 5,0 ≤ 0,3 t ≥ 5,0	Longitudinal % ⁽²⁾
			≤ 0,8 2,0 ≤ t < 5,0 ≤ 0,6 t ≥ 5,0	Transversal % ⁽²⁾
Resistance to impact by large diameter ball	EN 438-2:2016 Par. 21	Drop height Indent diameter	≥ 1400 2,0 ≤ t < 6,0 ≥ 1800 t ≥ 6,0 ≤ 10	mm
Resistance to crazing	EN 438-2:2016 Par. 24	Appearance	≥ 4	Rating
Density	EN ISO 1183	Density	≥ 1,35	g/cm ³
Flexural modulus	EN ISO 178	Stress	≥ 9000	MPa
Flexural strength	EN ISO 178	Stress	≥ 80	Mpa
SURFACE PROPERTIES				
Resistance to surface wear	EN 438-2:2016 Par. 10	Initial point	≥ 50 vertical application ≥ 150 horizontal application	Revolutions
Resistance to water vapour	EN 438-2:2016 Par. 14	Appearance	≥ 3 gloss finish ≥ 4 other finishes	Rating
Resistance to dry heat (160°C)	EN 438-2:2016 Par. 16	Appearance	≥ 3 gloss finish ≥ 4 other finishes	Rating
Resistance to wet heat (100°C)	EN 438-2:2016 Par. 18	Appearance	≥ 3 gloss finish ≥ 4 other finishes	Rating
Resistance to scratching	EN 438-2:2016 Par. 25	Force	≥ 2 for smooth finishes ≥ 3 for textured finishes	Rating
Resistance to staining	EN 438-2:2016 Par. 26	Appearance	5 groups 1 & 2 ≥ 4 group 3	Rating
Light Fastness (Xenon-arc)	EN 438-2:2016 Par. 27	Contrast	≥ 4	Grey scale rating

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FOOD & HYGIENE PROPERTIES				
Contact with food - overall migration	EN 1186	Acetic acid 3 % Ethanol 50 % Ethanol 95 % Isooctane	≤ 10 ≤ 10 ≤ 10 ≤ 10	mg/dm ²
Evaluation of micro-organisms action	JIS Z 2801:2012	Antimicrobial activity after 24h	> 3 > 99,9	Bacterial viability: Log reduction % Reduction
ENVIRONMENTAL PROPERTIES				
Formaldehyde emission	EN 13986	Formaldehyde emission rating	E1	Rating
Volatile organic chemical emission	AFNOR NF EN ISO 16000-9	Classification	A+	Rating
		TVOC emission	≤ 0,2	mg/m ³
Phenol Free ⁽³⁾	AFNOR NF EN ISO 16000-9	Phenol emission	< 0,002	mg/m ³

Notes

- (1) t: nominal thickness [mm]
 (2) Longitudinal: parallel to the fiber direction (usually parallel to the direction of sanding). Transversal: at right angles to the fiber direction
 (3) Phenol is not used as raw material in A.BAC COMPACT production. 0,002 mg/m³ is the detection limit (DL) value of the test.

Note to A.BAC COMPACT sheets with adhesive protective film

Protective films are designed to temporarily protect surfaces against dirt, scratches and marks caused during processing of materials. These films do not protect against corrosion, humidity and chemicals.
 A.BAC COMPACT laminates protected with this film must be stored in a clean, dry place (relative humidity 40 to 60%) at room temperature (20 to 25°C), preventing direct and indirect exposure to weathering and UV radiation.
 The protective film may be removed without damaging the surface up to four months max from the date the product is delivered by Puricelli, provided that the above storing conditions are strictly complied with. Puricelli is in no way responsible for improper storage or improper use of the laminates protected with this film, or for any damage caused by unrecommended use.