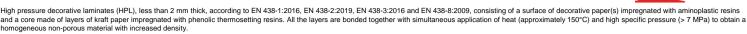
## THIN | STANDARD



These this laminates are normally intented for bonding to supporting substrates, normally wood based, to produce panels by the composite manifacturers.

		Decor	1	Plain colours Printed decors Iridescent colours Ve		
		EN 438 classification Standard	+ +	HGS - HGF HGS - HGF EN 438-3 EN 438-3	ATS - ATF EN 438-8	VGS - VGF EN 438-3
PROPERTIES	TEST METHOD	PROPERTY OR ATTRIBUTE	UNIT	VALUES		
URFACE QUALITY						
• • •		Spots, dirt and similar surface defects	mm <sup>2</sup> /m <sup>2</sup>	s ۱		
urface quality	EN 438-2.4	Fibres, hairs and scratches	mm/m <sup>2</sup>	≤ 10		
MENSIONAL TOLERANCES						
	EN 438-2.5	Thickness tolerance	mm mm	± 0,10 for thickness 0,5 ≤ t ≤ 1,0 ± 0,15 for thickness 1,0 < t < 2,0		
Dimensional tolerances	EN 438-2.6	Length and width	mm	+ 10 / - 0		
	EN 438-2.7	Straightness of edges	mm/m	≤ 1,5		
	EN 438-2.8	Squareness	mm/m	≤ 1,5		
	EN 438-2.9	Flatness (measured on full-size sheet)	mm/m	≤ 6	0	
ENERAL PROPERTIES						
esistance to surface wear	EN 438-2.10	Initial Point	Revolutions	≥ 150 ≥ 100	n.a.	≥ 50
esistance to immersion in boiling water	EN 438-2.12	Appearance - Gloss finish Appearance - Other finish	Rating Rating	≥3 ≥4		
esistance to water vapour	EN 438-2.14	Appearance - Gloss finish Appearance - Other finish	Rating Rating	≥3 ≥4		
esistance to dry heat (160 °C/20')	EN 438-2.16	Appearance - Gloss finish Appearance - Other finish	Rating Rating	≥ 3 ≥ 4	n.a. n.a.	≥ 3 ≥ 4
sistance to wet heat (100 °C/20')	EN 438-2.18	Appearance - Gloss finish Appearance - Other finish	Rating Rating	≥ 3 ≥ 4	n.a. n.a.	≥ 3 ≥ 4
mensional stability at elevated temperatures	EN 438-2.17	Cumulative dimensional change Cumulative dimensional change	Longitudinal % Transversal %	≤ 0,55 ≤ 1,05	≤	0,75 1,25
esistance to impact with small diameter ball	EN 438-2.20	Spring force	N	≥ 20	٤	15
sistance to impact with large diameter ball	EN 438-2.21	Drop height Indentation diameter	mm mm	≥ 800 ≤ 10	n.a.	≥ 600 ≤ 10
esistance to cracking under stress	EN 438-2.23	Appearance	Rating	≥4		
sistance to scratching	EN 438-2.25	Appearance	Rating	≥3	2	≥2
esistance to staining	EN 438-2.26	Appearance - Group 1 & 2 Appearance - Group 3	Rating Rating	≥5 ≥4		
ght fastness (Xenon-arc)	EN 438-2.27	Contrast	Grey scale rating	≥4		
ectrostatic properties	EN 61340-4-1	Point to point resistance Vertical resistance	Ω Ω	$10^9 \div 10^{11}$ $10^9 \div 10^{11}$		
ensity	EN ISO 1183	Density	g/cm <sup>3</sup>	≥ 1,35		
RE PERFORMANCES						
eaction to fire	The reaction to fire of Standard Thin composite manufacturer is responsite	is related to the final composite panel where the laminate is b le for the correct execution of the test in accordance with the	oonded to a substrate. Since applicable standards and te	the test results also depend on the substrate, the a st methods required for the specific application field	dhesive and the bonding	technique applied,
THER PROPERTIES						
/giene	NSF/ANSI 35	Suitability for use as work and nonwork surfaces of food service equipment on which direct food contact during normal preparation or holding operations is not intended, expected, or reasonable	Suitability	NSF certified		
ormaldehyde emission	EN 13986	Formaldehyde emissions	Rating	E1		
platile Organic Chemical Emissions	Greenguard Certification Low Chemical Emission UL 2818	Volatile Organic Chemical emissions	Suitability	Greenguard certified		
od contact	Regulation EU nº 10/2011 and following amendments	Food Contact Materials performance	Suitability	Compliant - conditions of use reported in the Declaration of conformity		

Note to laminates with adhesive protective film The protective films are designed for temporary surface protection against dirt, scratches and tool marks; they are not designed for protection against corrosion, humidity or chemicals. The laminates covered with the protective film shall be stored in a clean, dry place at room temperature (optimum 20°C), avoiding weathering and UV exposure. The protective film must be removed from the surface of the laminates after the application and before putting into use the finite element. In any case, the removal must be made within six months from the date of shipment by the manufacturer. The manufacturer cannot be responsible for the misuse of the laminates covered with the protective film, nor for the consequences for non-recommended applications.

Note to digital printing decoratives For the chemical-physical characteristics of digital printing, the laminates with these decors may present a limitation in the applications, such as the repeated and intense contact with water or vapour. Customers are asked to contact the Customer Service of Formica to evaluate the best solution.

Note to surface wear resistance In the case of structured finishes, the surface wear resistance values may be 10 or more revolutions lower then the nominal values in proportion to how much more is accentuated the shape.

Disclaimer
The Material Properties Data Sheet provides technical information relevant to the performance of the product as tested by the manufacturer or certified testing body.
Any information contained within this document must be verified and tested for suitability by the user for his or her particular purpose or specific application. Consideration needs to be given to local or specific circumstances. The content of this document reflects our knowledge and experience at the time of publication. The newest version of the document replaces all previous versions. We advise that the newest version may contain technical changes that must be taken into account when using the products. The latest version of the document may be consulted on our website www.formica.info.
Coststomers show whether an updated version of the document may be waitable. We have made every effort to ensure the accuracy of the information in this document, but it cannot be held lable for any oversights, inaccuracies or typographical errors. Formica will not assume any liability if the end-user or customer shows the show other echnical information of the products.

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