

SURFORMA® Laminates (HPL)

High pressure decorative laminates postforming grade

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Product description

SURFORMA® decorative laminates (HPL) are a high pressure thermosetting plastic surfacing material, consisting of fibrous multilayer core material (kraft paper) impregnated with thermosetting phenolic resin, covered by a fibrous material decorative layer impregnated with thermosetting melamine resin. The layers are bonded together by a high pressure and temperature process.

Decorative high-pressure laminates for horizontal and vertical applications

HPL, a homogeneous and non-porous material, is highly resistant to wear, chemicals and stains under normal use and conditions. Available in postforming grade, thickness 0,80 mm (0,032 in) the product is suitable for most commercial, institutional and residential heavier duty applications. Typical usages include work surfaces, counters, table tops, cabinets, furniture, wall paneling, doors, ceilings, window sills and frames, partition systems and similar surfaces.

Postforming features

This operation of forming decorative laminate into simple bends and shapes is done by uniformly heating the laminate to a temperature of approximately 163 °C (325 °F) and pressing or bending it into the required shape before cooling. This requires controlled conditions and equipment. Practically any shape consisting of simple bends can be fabricated. The laminates will typically postform to a minimum radius of 8 mm (0,315 in) measured on the outside bend. Substrates such as particleboard PB and MDF are the most appropriate.

Surface textures

SURFORMA® laminates are available in nine surface textures:

Series	Texture code	Texture name	Texture description	Gloss level at 60°
Sommet®	VA	VIVA	Synchronized texture - the true touch of wood, butternut pattern	5 - 10
	BV	BRAVA	Synchronized texture - the true touch of wood, teak pattern	5 - 10
Prélude®	MA	Materia	Matt texture	1-4
	KA	Karisma	Natural brushed linear texture	3 - 6
	AT	Alto	Alternating Linear gloss-matte texture	6 - 11
	UR	Urbania	Deeper wood-ticking texture	10 - 16
	SN	Smoothwood	Smooth, fine-grain veneer-like texture	10 - 16
	CR	Crystalite	Traditional medium gloss grain texture	13 - 19

Serie	Texture code	Texture name	Texture description	Gloss level at 20°
LUMMIA®	HG	High Gloss	Smooth and high sheen finish	90 - 110

Sheet size, thickness and weight

SURFORMA® laminates are available in the following standard offer:

System of measurement	Size	Thickness	Weight
Metric	1 530 x 2 743 mm	0,80 ± 0,10 mm	4,70 kg per sheet
Imperial	5 x 9 ft	0,0310 ± 0,004 in	10,4 lb per sheet

Physical properties of postforming grade

SURFORMA® laminates meet or exceed all the requirements of the NEMA LD3 standard.

NEMA	Test method	Grade / Unit	NEMA standard	Typical SURFORMA® performance
3.3	Light resistance	Rating; Min.	Slight effect	No effect
3.4	Cleanability (cycles)	Rating; Max.	20	15
	Stain 1-10	Rating; Min.	No effect	No effect
	Stain 11-15	Rating; Min.	Moderate effect	Slight effect
3.5	Boiling water resistance	Rating; Min.	Slight effect	No effect
3.6	High temperature resistance	Rating; Min.	Slight effect	No effect
3.7	Scratch resistance	Linear glass	To be determined	< 50 gr
		Diamond	To be determined	Rating 3
3.8	Ball impact resistance	mm; Min.	500	800
3.9	Dart impact resistance	mm; Min.	200	600
3.10	Radiant heat/coil	Sec; Min.	80	120
	Radiant heat/strip	Sec; Min.	To be determined	180
3.11	Dimensional change	% MD; Max.	1.1	0.4
		% CD; Max.	1.4	0.9
3.12	Dimensional stability	% MD; Max.	1.0	0.1
		% CD; Max.	1.3	0.6
3.13	Wear resistance	Cycles; Min.	400	800
3.14	Formability	Radius; Min.	13	13
3.15	Blister resistance	Sec; Min.	40	55

Flame spread and smoke development

Grade	Flame spread rating CAN/ULC S-102	Smoke development classification CAN/ULC S-102	Flame spread index UL723 (ASTME84)	Smoke development index UL723 (ASTME84)
Postforming*	55	30	110	25

*Laminate bonded to an inorganic substrate (GRC glass reinforced cement board)

Standards

SURFORMA® laminates meet or exceed standard tests set by:

The National Electrical Manufacturers Association “ANSI/NEMA LD-3:2005” for high pressure decorative laminates. The purpose of this Standards Publication is to provide standard test methods and performance for high-pressure decorative laminates. The compliance of SURFORMA® laminates was tested and validated by the Laboratory of North Carolina State University, a member of ANSI.

SURFORMA, S.A is certified under ISO 9001 Quality Management System.

SURFORMA, S.A is certified under ISO 14001 Environmental Management System.

SURFORMA, S.A is certified under ISO 45001 Occupational Health and Safety Management System

The GREENGUARD Environmental institute has awarded its Indoor Air Quality Certification for SURFORMA, S.A. All SURFORMA, S.A. laminate product types were tested under the stringent GREENGUARD standard for low-emitting products. All GREENGUARD Indoor Air Quality Certified products ensure minimal impact on the indoor environment. For a copy of the certificate, visit the site www.greenguard.org (Ongoing)

FSC® certification

All SURFORMA® colours in the Sommet® Series and several Prélude® colours are available as FSC® certified.



The mark of
responsible forestry

Antimicrobial activity and efficacy

SURFORMA® decorative laminates have a non-porous surface that does not promote bacterial growth. Tested according to the method ISO 22196:2011 and verified for its compliance with the Japanese criteria defined in JIS Z2801:2012 for antimicrobial activity and efficacy, our laminate surface exhibits strong biocidal properties, with a reduction of 99.9% of the tested bacteria (*Escherichia coli* ATCC 8739, *Staphylococcus aureus* ATCC 6538).

Recommendations

The advice and recommendations are of advisory nature only

Handling and Storage - SURFORMA® laminates should be stored so they are protected from moisture, humidity and direct sunlight. The laminates should preferably be stored face to face or decorative side facing up, flat in fully horizontal and level racks.

When handling or moving SURFORMA® decorative laminates it is important that the sheets are lifted above adjacent sheets to avoid damage that can occur if the sheets are pulled or slid against each other. For larger sizes, it is recommended that sheets are carried arched along the longitudinal axis to prevent sagging. Individual sheets can also be rolled up for easier handling (roll with the decorative face inwards, making sure to avoid any sideways sliding motion).

The SURFORMA® HIGH GLOSS laminates are supplied with a protective peel coat. It's recommended to leave it for protection during handling, transport and panel fabrication. Remove it after the finished product is installed and ready for use.

Maintenance and Cleaning - SURFORMA® laminates, with their durable, hygienic and waterproof surface, require no special maintenance. The surface can be cleaned with warm water followed by wiping with a paper towel or soft cloth. Persistent contamination can usually be eliminated with non-abrasive household cleaners. They are resistant to most solvents and chemicals used daily at home.

Waste Disposal - SURFORMA® laminates are a cured material chemically inert and are therefore classified as a non-hazardous product, thus not requiring any specific labelling. They can be brought to controlled waste disposal sites according to current national and/or regional regulations. Burning is permitted in approved industrial incinerators. Each organization is subject to its own statutory and local laws.

This document makes no claim of completion in respect of the listing of the full details of standards referred to in the text.

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