

SURFORMA® POSTFORMING

High-Pressure Decorative Laminates NEMA LD3

DESCRIPTION

SURFORMA® decorative laminates 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 high pressure and temperature process.

PROPERTIES

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, tabletops, cabinets, furniture, wall paneling, doors, ceilings, window sills and frames, partition systems and similar surfaces.



LOW EMISSIONS



ANTI-STATIC



ABRASION RESISTANT



SCRATCH RESISTANT



STAIN RESISTANT



LIGHT RESISTANT



EASY TO CLEAN



DIMENSIONAL STABILITY



EASY TO MILL



POSTFORMABLE

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.

RECOMMENDATIONS

Transportation

SURFORMA® laminates are a cured material and are chemically inert and are therefore classified as a non-hazardous product, thus not requiring any specific labeling. REACH classification does not apply.

Storage

SURFORMA® laminates should be stored to protect them 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.

Handling

To handling or moving SURFORMA® decorative laminates, the sheets must be lifted above adjacent sheets, to avoid damage that can happen if they are pulled or slid against each other. For larger sizes, it is recommended to carry them 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).

Maintenance and Cleaning

Because SURFORMA® laminates have a durable, hygienic and waterproof surface, they do not require special maintenance. The surface can be clean with warm water and wipe 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 may be taken 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.

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PHYSICAL PROPERTIES OF POSTFORMING GRADE

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

NEMA	TEST METHOD	GRADE/ UNITS	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	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)

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STANDARDS AND APPROVALS

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 is certified EN ISO 9001:2015 Quality Management System.
- SURFORMA is certified under the EN ISO 14001:2004 Environmental Management System.
- SURFORMA is certified under the OHSAS 18001:2007 Occupational Health and Safety Management System
- The GREENGUARD Environmental Institute has awarded its Indoor Air Quality Certification for Sonae - Indústria de Revestimentos, S.A. All Sonae - Indústria de Revestimentos, 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

FSC® CERTIFICATION

SURFORMA® products are available as FSC® Mix Credit and FSC® Controlled Wood, under FSC® License number FSC C111655.

PEFC CERTIFICATION

SURFORMA® products are available as % PEFC Certified and PEFC Controlled Sources, under PEFC™ License number PEFC/13-31-051.

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 verification of the 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).

SURFORMA® STANDARD COLLECTION

We offer a wide array of colors ranging from pearlescent to exotic woodgrains, to subtly enhanced patterns and well blended solid colors.

Please refer to our standard color collection for all colors and patterns.

This document makes no claim of completion in respect of the listing of the full details of standards referred to in the text. All information is based on the current state of technical knowledge, but it does not constitute any form of liability.

It is the personal responsibility of the user of the products described in this information leaflet to comply with the appropriate laws and regulations.

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CERTIFICATIONS

