

## INNOVUS HPL FIRE RETARDANT IMO

Certificate N° 0987/MED-B/849

Decorative laminates for marine applications

### DESCRIPTION

Innovus decorative laminates Fire Retardant, are certified to meet IMO (International Maritime Organisation) requirements following SOLAS (Safety of Life at Sea) rules.

According to EN 438, the HPL is an excellent material for indoor surfaces, either horizontal or vertical. Innovus decorative laminates meet the stringent requirements for hygiene, fire resistance, humidity resistance and mechanical properties.

The surface of the laminate is antibacterial, validated accordingly to Japanese regulation JIS Z 2801.

Innovus decorative laminates are available in a variety of colours, patterns and surface textures, providing extensive options for architects and designers.

**Please check offer & service brochure for information on sizes and thicknesses available.**

### PROPERTIES



FIRE RETARDANT



ANTIBACTERIAL



LOW EMISSIONS



DURABILITY



VERSABILITY



EASY TO CLEAN



STAIN RESISTANT



SCRATCH  
RESISTANT



ABRASION  
RESISTANT



RESISTANT TO  
CHEMICALS



DIMENSIONAL  
STABILITY



LIGHT RESISTANT



ANTI-STATIC

### APPLICATIONS

Innovus decorative laminates are meant to be used in interior marine applications where design, appearance, quality, durability, resistance to stain and fire resistance with low smoke emissions are important features.

Innovus laminates are the best choice for marine equipment, ensuring that each vessel will meet the global safety requirements on board.



NAVAL USE

**Complies with the requirements in the Regulation / Standards: Annex B, Module B. Directive MED/3.18 (a) and (c)**

SOLAS Reg. II-2/3, Reg. II-2/5, Reg. II-2/6, Reg. II-2/9, Reg. X/3

SOLAS Reg. II-2/3, Reg. II-2/5, Reg. II-2/6, Reg. II-2/9, IMO Res. MSC 36 (63) – (1994 Code HSC) 7, IMO Res. MSC 97 (73) (2000 HSC Code 7), IMO Circ. MSC 1120

IMO Res. MSC 307 (88) (FTP Code 2010)

**Additional performance in reaction to fire**

**B-s1,d0**

Composite panels comprising HPL type IMO bonded to non-combustible substrates, in accordance with EN 13501-1 Euroclass

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## GENERAL FEATURES

PROPERTIES	TEST METHOD	UNIT (max or min)	HGF IMO	VGF IMO	
<b>Dimensional tolerance requirements</b>					
Thickness	EN 438-2:5	mm (max. variation)	$0.8 \leq t \leq 1.0$	± 0.10	
			1,2	± 0.15	
Length and width	EN 438-2:6	mm	+ 10 / - 0		
Edges straightness	EN 438-2:7	mm/m (max. deviation)	1.5		
Edges squareness	EN 438-2:8	mm/m (max. deviation)	1.5		
Flatness	EN 438-2:9	mm/m (max. deviation)	60		
<b>General Requirements</b>					
Resistance to surface wear	EN 438-2:10	Revolutions (min.)	Initial Point	150	50
Resistance to immersion in boiling water	EN 438-2:12	Appearance, rating (min.)	Gloss/other finishes	3 / 4	
Resistance to water vapour	EN 438-2:14	Appearance, rating (min.)	Gloss/other finishes	3 / 4	
Resistance to dry heat (160 °C)	EN 438-2:16	Appearance, rating (min.)	Gloss/other finishes	3 / 4	
Dimensional stability at elevated temperature	EN 438-2:17	Cumulative dimensional change % (max.)	Longitudinal	0.55	0.75
			Transversal	1.05	1.25
Resistance to wet heat (100 °C)	EN 438-2:18	Appearance, rating (min.)	Gloss/other finishes	3 / 4	
Resistance to impact by small diameter ball	EN 438-2:20	Spring force, N (min.)		20	15
Resistance to scratching	EN 438-2:25	Force (min.)	Smooth/ Textured finishes	2 / 3	1 / 2
Resistance to staining	EN 438-2:26	Appearance, rating (min.)	Group 1 e 2 / Group 3	5 / 4	
Light fastness (xenon arc)	EN 438-2:27	Contrast	Grey scale rating	4 to 5	
Density	EN ISO 1183-1	Density, g/cm <sup>3</sup> (min.)		1.35	

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### RECOMMENDATIONS

The Innovus laminates should be stored so they are protected from moisture, humidity and direct sunlight. The laminates should preferably be store face-to-face, flat in horizontal racks. When handling or moving decorative laminates, it is important that the sheets be 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 be carried arched along the longitudinal axis to prevent sagging. Individual sheets can also be rolled up for easier handling (roll with the decorative face inward, making sure to avoid any side-to-side sliding motions).

The Innovus 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.

The laminates are classified as non-hazardous; it is not necessary additional product description labels. It is a cured material and is chemically inert. REACH classification does not apply to them. Innovus HPL can be brought to controlled waste disposal sites according to current national and/or regional regulations.

Innovus Laminates are classified in accordance with EN 438 – Sheets based on thermosetting resins (Usually called Laminates) – Part 3: Classification and specifications for laminates less than 2 mm thick intended for bonding to supporting substrates. The physical and mechanical properties vary depending on the substrate used. For more information about these properties, please refer to the corresponding Technical Data Sheet.

### CERTIFICATIONS

Please pay attention to certified products:



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responsible forestry  
FSC® C013589



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Sustainable Forest  
Management  
www.pefc.org



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