

PoliLam Phenolic Core Compact Laminate

Phenolic Core Compact Laminate is a durable and versatile material made by fusing layers of resin-impregnated kraft paper under high pressure and temperature. It resists impact, moisture, heat, and chemicals, making it ideal for countertops, furniture, partitions, and wall panels in both commercial and residential applications.

Key Features

Dimensions:

4x8ft (1220x2440mm), 4x10ft (1220x3050mm),
5x8ft (1525x2440mm), 5x12ft (1525x3660mm),
4-25mm (1/8in-1in)

Physical Properties:

Based on EN 438, NEMA LD3-2005, EN ISO requirements, ensuring the material meets high strength and durability standards.

Fire Resistance:

Based on the requirements of EN 13501-1: 2018, 'Classification of Burning Behavior for Building Materials and Products,' this product is rated B1 for fire performance. The results indicate that smoke toxicity complies with safety level ZA3 or higher.

Formaldehyde Emission:

Based on EN 717-1: 2004 formaldehyde emission requirements, complying with the air quality standard for formaldehyde release.

Eco-Certification:

Certified by GREENGUARD, Greenguard Gold, FSC Forest Certification.

Technical Specifications

Property	Standard&Clause	Standard Value
Thickness Tolerance	EN438-2-5/ NEMA LD03-2005	4mm±0.4mm, 6mm±0.4mm, 8mm±0.5mm, 10mm±0.5mm, 12.7mm±0.6mm
Flatness Tolerance	EN438-2-9/ NEMA LD03-2005	4mm 5mm/m, 6mm 5mm/m, 8mm 5mm/m, 10mm 3mm/m, 12.7mm 3mm/m
Length Width Tolerance	EN438-2-6	+10mm/-0
Straightness of Edge Tolerance	EN438-2-7	1.5mm/m max deviation
Flexural Modulus	EN ISO 178	9000 MPa (min)
Flexural Strength	EN ISO 178	100 MPa (min)
Density	EN ISO 1183	1.4g/cm ³
Dimensional Stability at Elevated Temperature	EN ISO 438-2-17	L 0.25% (max), L 0.35% (max)
Resistance to Artificial Weather	EN ISO 438-2-29	contrast min 3 after 650 MJ/m ² appearance min 4 after 650 MJ/m ²
Resistance to Climatic Shock	EN ISO 438-2-19	flexural strength index(Ds) 0.95 (min) flexural modulus index(Ds) 0.95 (min) appearance grade 4 (min)
Fire Test (SBI)	EN ISO 13501-1:2018	B-s1, d0(≥6mm)
Thermal Conductivity	EN ISO 12524	0.3 w/mk
Cleanability	ANSI NEMA LD 3-2005 Section 3.4	Score: 6
Stain Resistance	ANSI NEMA LD 3-2005 Section 3.4	No effect
Boiling Water Resistance	ANSI NEMA LD 3-2005 Section 3.5	No effect
High Temperature Resistance	ANSI NEMA LD 3-2005 Section 3.6 Hot wax method	No effect
Scratch Resistance	ANSI NEMA LD 3-2005 Section 3.7.3	Rating: 3
Ball Impact Resistance	ANSI NEMA LD 3-2005 Section 3.8	1100mm
Wear Resistance	ANSI NEMA LD 3-2005 Section 3.13	1200 cycles
Tensile Strength	ASTM D638-14	104MPa

Compact Laminate Decor Collection



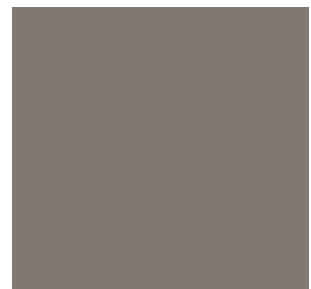
Digital Print



Woods



Patterns



Solids

Featuring a range of Color Patterns and textures to suit any style. These designs add versatility and depth, ensuring a perfect match for various design projects.

Applications

PoliLam Phenolic Core Compact Laminate are perfect for a variety of interior design applications including:



Mechanical and Environmental Performance

- **Bending and Tensile Strength:** A bending strength of 104 MPa provides reliable support for load-bearing applications.
- **Wear Resistance:** The wear index of Compact reaches 1200 cycles, ensuring durability and longevity of the panel.
- **Stain Resistance:** The stain resistance rating is the highest, Grade 5, aiding in easy daily cleaning and maintenance.

Installation and Maintenance

Installation:

Panels with a thickness of 0.16-0.25 inch are installed using a keel adhesive method, while panels with a thickness more than 0.312 inch are installed using a keel wall-hanging method.

Maintenance:

Compact is easy to clean and maintain, with surface resistance to corrosion, moisture, and abrasion, making it an ideal choice for high-traffic residential and commercial spaces.

Handling and Storage:

During transportation and storage, Compact panels must be placed on a flat pallet, with the pallet size slightly larger than the panel size. Compact panels should be carried by two or more people, lifted flat, and carried vertically to prevent breakage. The panels must be stored indoors at room temperature, avoiding rain, humidity, high temperatures, and direct sunlight. During storage, the bottom and top of the panels must be cushioned with similar or thick materials to prevent direct exposure to air, which can cause moisture absorption and deformation.

How to handle warping of panels caused by improper storage?

Production and inspection for PoliLam Compact Grade follows NEMA LD3-2005 strictly. It is important to carry out the procedures of carry, storage and installation, to avoid the warp of material. The warped Compact laminate might be recovered smooth, but depending on the environment. For technical assistance, please contact technical department of PoliLam.