# **PoliLam**

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Color. Texture. Culture Color. Texture. Culture



### **Class A Fire Retardant Material**

PoliLam Fiber® is decorative wall panel made with a melamine impregnated decorative layer and a noncombustible composite fiber glass core, pressed at high temperature and high pressure.

This product has excellent flame retardancy, won't expand, and can effectively slow down combustion and flame diffusion. Our advanced production process of PoliLam Fiber® gives this product numerous characteristics including antibacterial, heat resistance, waterproof, abrasion resistance, impact resistance, corrosion resistance, and easy clean surface.

In addition to excellent physical performances, PoliLam Fiber® is in line with PoliLam's design process where we collaborate with renowned European design companies to jointly design and develop our collection. We use advanced digital scanning technology to replicate natural materials by reprocessing and redesigning real natural material. We combine technology with nature to create surface decorative panels centered on environmental protection and design. With a rich color system and surface texture, for designers to choose from. Exceeding industry demands for space customization.

FII3ER 2



### **Fire Retardant**

The laminate is molded at one time at high temperature and high pressure, and a new generation of Class A fire retardant materials, providing a safe building environment.



### **Anti-Bacterial**

Silver ion technology is added to inhibit the growth of mold and bacteria, keeping the surface safe and



### Installation

The laminate supports a variety of cutting and installation methods (glue can be directly attached to flat surfaces such as tiles and cement without profile backing), which greatly saves installation time and cost. Convenient construction and easy maintenance.



### **Environmentally Friendly**

This green building material has passed various environmental certifications. It does not contain asbestos or harmful radioactive elements, safe for humans and the environment.



### **Design Enhancement**

PoliLam Fiber® has a variety of colors, including but not limited to woodgrains, stones, and solid colors. A delicate texture selection, which enhances the competitiveness of the overall environment and customer experience and can meet different customization needs of customers.



### **Water and Moisture Resistance**

The physical characteristics of fiber glass core material make PoliLam Fiber® have greater waterproof and impermeable properties.

### **Universal characteristics**



Scratch and Abrasion Resistant



Very Low Levels of Swelling Properties



Dimensionally Stable and Rigid



**High Temperature Resistance** 



Diverse and Flexible Design



Easy to Cut and Assemble



Easy Clean



Resistant to Cigarette Burns



Lightweight



Modular And Quick Installation

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# **CERTIFICATION AND QUALIFICATION**

As a company we have completed ISO9001, ISO14001, ISO18001 quality management classifications as well as environmental and occupational health system classifications. Continuously reaching GREENLABEL and GREENGUARD environmental system classifications; FSC forest certification concerned with environmental systems and more.

### A Declaration on Sustainable Development:

PoliLam has always pursued environmental protection when it comes to their production process and finished products. Applying energy management, waste management, environmental management, transportation and raw material supply channel management to sustainable development practices and fulfilling social responsibilities. Meanwhile, we are committed to improving the efficiency of the use of resources so as to achieve the long-term goal of protecting the Earth's environment and sustainable use of resources.













# **OUR PHILOSOPHY COLOR. TEXTURE. CULTURE.**

PoliLam regards sustainable development as a business virtue and value, strictly abides by it, and always will.

PoliLam's raw material suppliers have undergone strict screening and auditing.

We have established long-term and stable cooperative relationships with high-quality suppliers in Europe, from the introduction of virgin paper, color paper printing to steel plate embossing. PoliLam's design and development team collaborates with renowned European design companies to jointly design and develop. Creating original designs (including wood grain, stone grain, and special decors) for clients all over the world.

In addition, we use advanced digital scanning technology to replicate natural materials, And reprocess and redesign some rare tree or rock textures to obtain ideal patterns. We aspire to be a 'replica of nature' and constantly seek inspiration from life. Integrating rationality and sensibility, combine technology with nature, and creating surface decorative panels centered on environmental protection and design.

PoliLam adheres to the concept of design first, innovation first, and product first. Persistant in making good products, designing well, and pursuing excellence.



Color is crucial in interior design. It affects our mood, attitude, and perception.



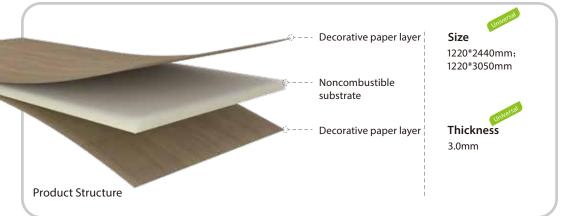
PoliLam incorporates texture while replicating the natural appearance. Touch one of the five senses, affecting every detail of daily life. Embossed steel press plate development enables us to achieve this with advanced texture haptics.



Culture influences everything, and PoliLam pulls the world's culture into our design through the power of technology and globalization.

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# **TECHNICAL PARAMETERS**

Performance Test Results					
Test Items	Test Standard	Standard Value	Unit	Conclusion	
Thickness	GB/T7911-2013	3.0mm±0.2mm	mm	Qualified	
Fire Rating (combustion performance level)	GB8624-2012	Class A2 Noncombustible	Class	Qualified	
Dimensional stability	GB/T7911-2013	Portrait (T) 0.4%; Landscape (L) 0.6%	%	Qualified	
Resistance to large ball impact	GB/T7911-2013	Maximum depression diameter ≤ 10	mm	Qualified	
Scratch resistance	GB/T7911-2013	Not below 3	Level	Qualified	
Pollution resistance	GB/T7911-2013	Not below 4	Level	Qualified	
Abrasion resistance	GB/T7911-2013	Not below 3	Level	Qualified	
Color fastness to light	GB/T7911-2013	4-5	Level	Qualified	
Crack resistance	GB/T7911-2013	Not below 4	Level	Qualified	
Dry heat resistance	GB/T7911-2013	Not below 3 Not below 4	Appearance, Level Others, Level	Qualified	
Damp-heat resistance	GB/T7911-2013	Not below 5	Level	Qualified	
Water vapor resistance	GB/T7911-2013	Not below 4	Level	Qualified	
Smoke burning resistance	GB/T7911-2013	Not below 3	Level	Qualified	

In order to meet A2 combustion performance (GB8624-2012), it must be ensured that the product is used in conjunction with the inorganic non-combustible version above 3mm.

# **APPLICATION AREAS**

PoliLam Fiber® is a widely used decorative fireproof wall panel. Suitable for wall and ceiling decoration of various types of public spaces, healthcare, education, hotels, and commercial buildings. It can also be used for interior decoration of spaces such as basements, corridors, factories, laboratories, etc. Additionally, it can be used in space areas such as public partitions, bathrooms, backsplashes, etc.

### **EDUCATION**

Dormitory, Classroom, Multimedia room, Corridor, Auditorium, Bathroom

/

# RESTAURANTS, SUPERMARKETS AND RETAIL

Counter, Wall panels, Preparation area

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### **OFFICE**

Lounge, Meeting room, Reception area, Front desk

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### **MEDICAL**

Nurse station, Foyer, Waiting room, Ward, Laboratory, Operating room

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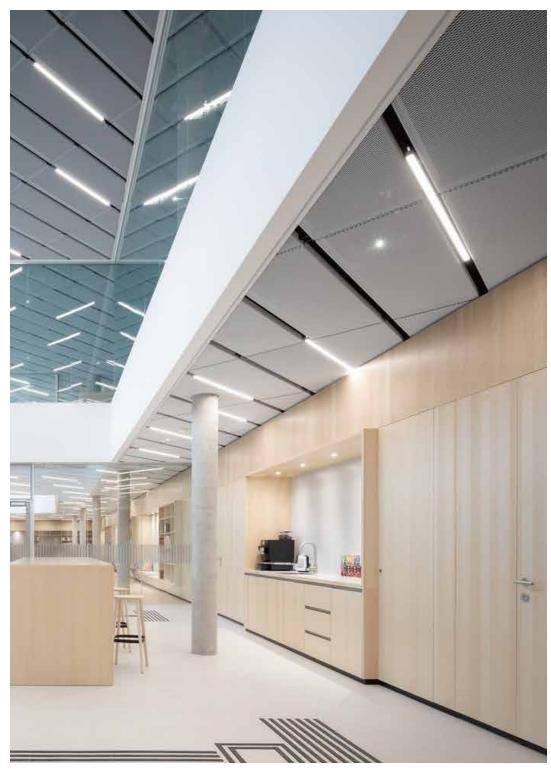
### **AIRPORTS, PUBLIC TRANSPORT**

Wall panels, Waiting halls, Business lounge

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### **OTHER**

Elevators, RVs, Stairwells



The image shown here is indicative only. Please refer to the actual product.





APPLICATION AREAS ---SCHOOLS

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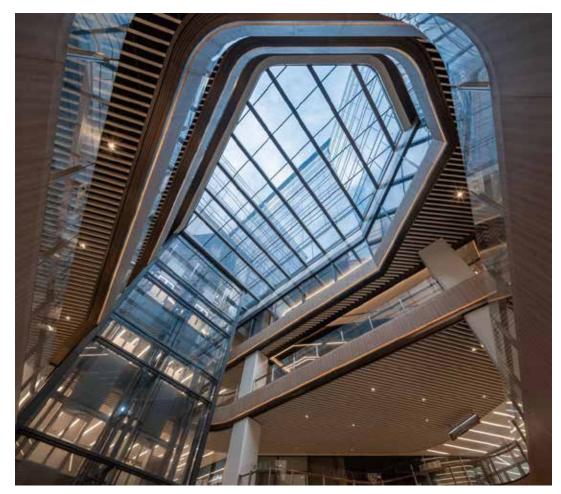




APPLICATION AREAS---HOTELS

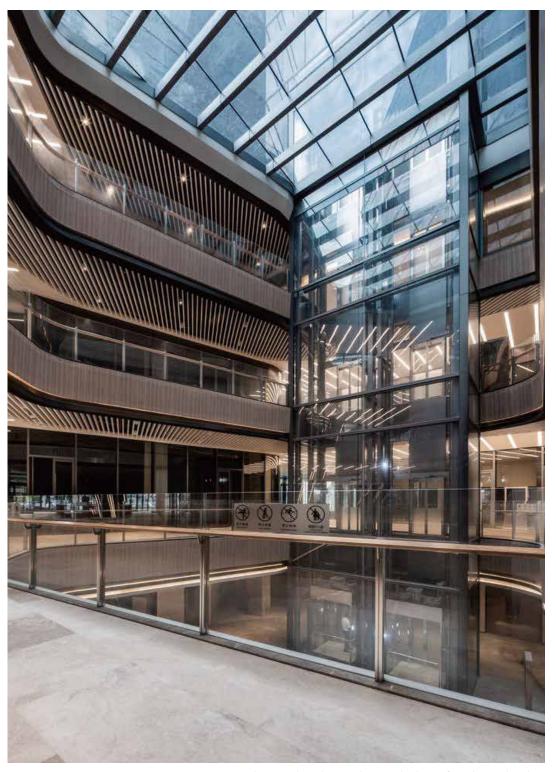


The image shown here is indicative only. Please refer to the actual product.





APPLICATION AREAS---MALLS



The image shown here is indicative only. Please refer to the actual product.





The image shown here is indicative only. Please refer to the actual product.

APPLICATION AREAS---HOSPITALS









# APPLICATION AREAS---LABS



APPLICATION AREAS---VIP ROOMS



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# MAINTENANCE GUIDE

### **STORAGE**

- 01 PoliLam Fiber® should be stored indoors in a cool and dry place, avoiding direct sunlight (recommended suitable indoor environment is: room temperature of 24 degrees Celsius, relative humidity of about 45%). Each sheet should be kept clean. Stacked horizontally and neatly on pallets larger than Fiber® boards, with a single stack height of less than 2.4m.
- 02 When stacking on pallets, a protective pad should be included on the top and bottom of each section and the boards should not be stacked directly on the ground. It is recommended to wrap the boards with plastic film to prevent moisture.
- 03 PoliLam Fiber® boards must be stacked horizontally and not vertically.

### TRANSPORTATION AND HANDLING

- 01 During transportation, the pallet must be sufficient to support the load and must not bend or tilt. At the same time, use an outer packaging box for protection, and wrap the four corners with protective gear to avoid damage to the edges and corners.
- 02 PoliLam Fiber® requires two or more people to carry. After the board is lifted horizontally, it should be lifted horizontally then vertically to prevent the board from breaking.
- 03 Pay attention to edge protection during transportation to avoid collisions; Do not drag the board to prevent surface damage.

### **CUTTING AND SLOTTING**

- 01 PoliLam Fiber® boards itself is relatively hard, so ordinary woodworking saws cannot cut it. It is necessary to use a stone cutting machine to cut the board, or a diamond blade for grinding and slicing (brazing) or a marble machine can be used for cutting.
- 02 PoliLam Fiber® boards need to be slotted on the side using a professional slotting machine. If manual grooving is required, a marble machine equipped with diamond grinding slices (brazed sheets) must be used to make short grooves on the side.
- 03 When cutting and slotting, it is necessary to pay attention to the correct use and size control of mechanical tools to avoid problems such as edge bursts and cracks.

### **DRILLING AND TRIMMING**

- 01 Special drill bits must be used to drill holes into PoliLam Fiber® boards.
- 02 To avoid damage to the outlet surface, the drill bit speed and pressure should gradually decrease.
- 03 Place a splint or small wooden block below the drilling point to prevent damage to the outlet.
- 04 To avoid cracking caused by concentrated force, sharp corners should be avoided during drilling. It is recommended to retain a minimum bending radius of 3mm for all internal corners, while smoothing other edges and corners.
- 05 After cutting, the rough edges of the board can be manually polished and smoothed. After polishing, waxing can be used to beautify the board edges and isolate air.

### **PRESERVATION**

- 01 General stains can be cleaned with a regular damp cloth.
- 02 Mild stains can be cleaned with warm water and neutral soap on the surface.
- 03 Stubborn stains can be cleaned with a high concentration cleaner or wiped with alcohol.
- 04 For particularly dirty and uneven surfaces nylon soft brushes can be used for cleaning.
- 05 After cleaning and brushing, use a soft cloth to wipe dry.
- 06 Do not use polishing agents with abrasives such as steel brushes to clean, as they may scratch the surface of the board.
- Do not use sharp hard objects to scratch the surface of the board.
- Do not place excessively hot objects directly on the surface of the board.
- 09 Do not use cleaning agents that contain grinding or non-neutral substances.

### **SPECIAL STAIN TREATMENT**

- 01 Printing mud and markings: wet cloth or other tools can be used to wipe and eliminate.
- 02 Pencil marks: can be wiped away with a water rag, and eraser.
- 03 Brush or trademark marks: can be wiped away using methanol alcohol and acetone.
- 04 Paint residue: wipe it with acetone, banana oil or rosin water.
- Strong adhesive residue: can be wiped away with toluene solvent.
- 06 White glue residue: can be wiped away with warm water containing 10% ethanol.

### DO NOT CONTACT THE FOLLOWING SOLVENTS WITH THE SURFACE OF THE BOARD





























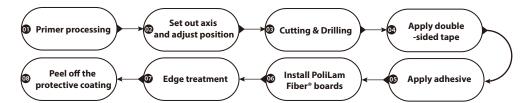
Mineral acid hydrochloric acid sulfuric acid or nitric acid

### **Please Note:**

If the use of cleaning agents, chemical solvents, or other maintenance methods by users leads to abnormal use of the board or other usage problems, PoliLam cannot be held responsible.

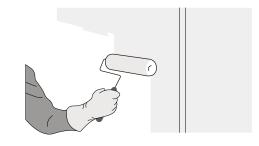
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# **INSTALLATION METHOD**

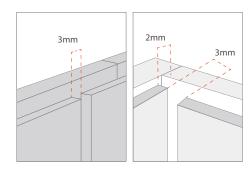


### **01 Primer Processing**

If the substrate is rendered, it should be applied with construction glue interface agent.



### 02 Set out axis and adjust position



When adjusting the axis, ensure that the board seams are staggered from the substrate seams. Always leave a gap of 3mm between the PoliLam Fiber® Boards.

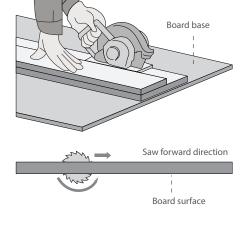
# 03 Cutting & Drilling

Use a guiding rule to ensure that the cut is straight and the front side is in the feed direction ( there is protective film on the front side ). Use a fine-toothed hand saw or electric saw with 10-12 teeth per mm. Or use a masonry cutting disc . Note: It is recommeded to use a jigsaw specifically for laminated board cutting.

The edges can be smoothed with a file or sandpaper.

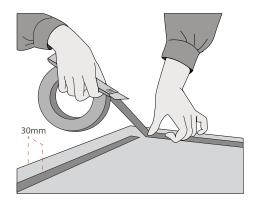
It is recommended to drill slowly and support the board with a base so as to avoid cracks behind the board.

Be sure to wear appropriate safety equipment, such as dust masks, googles, hearing protection and gloves.

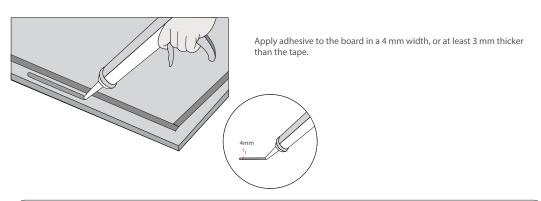


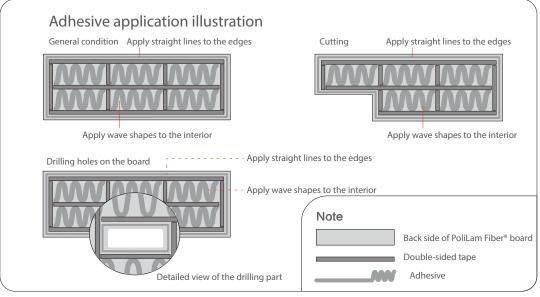
# 04 Apply double-sided tape

Place the double-sided tape 30 mm from the edge of the front fender and attach the tape to the edge of the tape.



# 05 Apply adhesive





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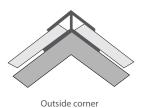
### **06 Installing PoliLam Fiber® Boards**

Place the board over the entire surface to ensure that there are no cavities under the board and that there is sufficient adhesion between the board and the substrate.



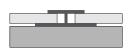
# 07 Edge treatment - Edge strip or adhesive appliction

1. Aluminum alloy or plastic strip (Leave a 2 mm gap at the edge of the board inside the strip.)





Inside corner

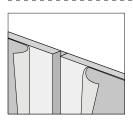


Jointe

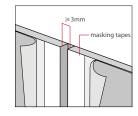


End-cap

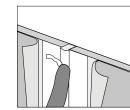
2. Sealant joining method



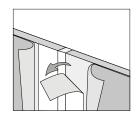
Remove the protective film from the edge of the board.



Leave a gap of more than 3 mm betweenboards, attach masking tapes to the gap and fill with a sealant.



Scrape off excess sealant immediately by a scraper.



Remove the masking tapes from the gap.

# 08 Peel off the protective coating

After curing for more than 2 days, please remove the protective film on the surface.

- a. Please use fine sandpaper wrapped with a splint to lightly grind the cutting surface and remove any burrs.
- b. When sealing the joint, gently remove the burrs from the uncut edges.

# **INSTALLATION PREPARATION**

# 01 Site Preparation

Use a ruler and plumb line to ensure that the wall is straight and vertical during installation. The walls should be clean, dry, dust-free, and free of grease. And all protrusions such as nails should be removed. Pre-check the squareness of each board and wall, as in some cases it may be necessary to trim or plane the edge of the board prior to installation.

### 02 Recommended Materials

Cement Fiber Board	Calcium Silicate Board	Plaster
Recommended minimum thickness ≥8mm, Medium density 1.2-1.5g/cm³	Recommended thickness≥9mm	Recommended Moisture Content ≤ 4.5%, Bond Strength≥1.0N/mm², Flatness>2mm

Remove any loose or flaky particles, dust and grease from the surface to ensure the adhesion strength of the nail-free or structural adhesives. Concrete/mortar plastering/magnesia board and other porous substrates shall be sealed with multiple layers of building glue interface agent. Follow the manufacturer's recommendations for application and drying time.

### 03 Fabrication Accessories



### Silicone Sealant

Please choose a silicone sealant that is suitable for use on PoliLam Fiber® board. Make sure that the silicone sealant is suitable to be used in bathrooms, kitchens and other high humidity environments. Please use antifungal silicone sealant.



### Adhesive

Please choose an adhesive that is suitable for use on PoliLam Fiber® board



### **Double-sided Tape**

For optimal bonding effect, please use a double coated clear polypropylene tapes with acrylic adhesive.

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<sup>\*</sup>Construction precautions

# **PoliLam Certifications:**



Singapore Green Label



EN 45545-2:2013 + A1 Fire Protection on Railway Vehicles EN 438-2:2016 + A1 2018



ISO 22196 Anti-Bacterial Test Report



NEMA LD 3-2004 Characteristics Anti-Bacterial Test Report



GREENGUARD & GREENGUARD GOLD



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