

Fiber Cement Boards/ Gypsum Drywall/ Panels

JPL Innovations. Pvt. Ltd.

Understanding Fibre Cement Boards

Fibre cement boards are factory-made building panels composed of cement, cellulose fibres, and mineral fillers. They are widely used for **interior and exterior wall cladding**, ceilings, and partitions due to their **high strength, dimensional stability, and resistance to moisture, fire, and termites**.

These boards provide a durable substrate but typically have **visible joints, screw marks, and surface porosity (air holes)** after installation. To achieve a smooth, paint-ready finish, they require **joint treatment, surface levelling, and a compatible coating system** that can accommodate minor movement while maintaining adhesion.



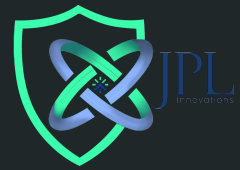
Understanding Gypsum (drywall) boards

Gypsum drywall boards are lightweight panels made from a **gypsum core encased in paper liners**, commonly used for **interior walls and ceilings**. They are preferred for their **ease of installation, smooth base surface, and cost efficiency** in modern construction.

However, drywall systems rely heavily on **joint finishing**, as board joints and fastener locations remain visible after installation. Traditional jointing compounds and putties can be **prone to cracking, shrinkage, or poor adhesion** if not properly applied or if the substrate moves. A flexible, uniform coating layer is essential to create a **continuous, paint-ready surface**.



The Problem or Challenge



Both fibre cement and gypsum boards are high-performance substrates—but the **final finish quality depends on how joints, seams, and surface inconsistencies are treated**. A single material that can **fill joints, level surfaces, and act as a base coat before paint** simplifies execution and improves long-term performance.

So Why use JPL Terrashield fine?





Introducing JPL Terrashield fine

JPL Terrashield fine is a **polymer-modified elastomeric coating** engineered to function as both a **joint treatment material and a continuous surface leveller** that can be used for fibre cement boards and gypsum drywall systems.

JPL Terrashield fine creates:

1. A **uniform, flexible coating layer** across the entire substrate
2. Helps accommodate **micro-movement at board joints**
3. Reduces the risk of hairline cracking, and delivers a **consistent, paint-ready surface** after two coats of application with a 45 GSM nylon mesh embedded between the two coats.

Its formulation ensures **strong adhesion to cementitious and gypsum substrates**, controlled flexibility, and low shrinkage during curing. Once applied in the recommended coats, the surface can be **directly finished with decorative paints**, eliminating multiple intermediate steps.



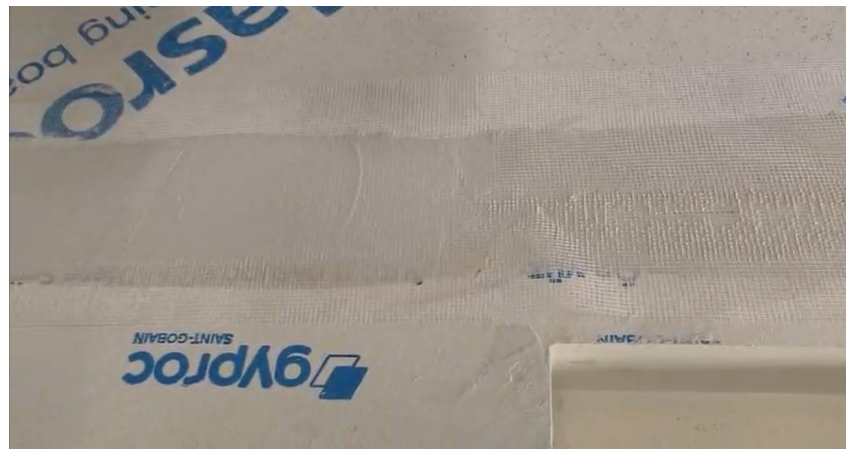
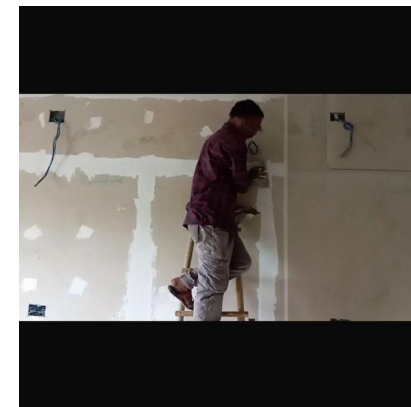
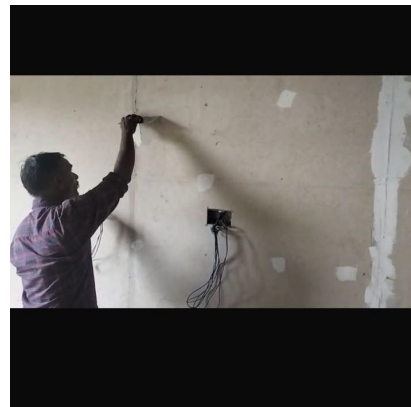
NABL Test Results

Carried out as per
ASTM Standards by
SriRam and Eurofin
Labs

- Class 1 or A Fire Retardant Surface rating
 - 3.2 MPA Compressive Strength
 - 5.8 MPA Tensile Strength
 - 1.9 MPA Flexural Strength
 - 24.3% Absorption after submerged for 24hrs.
 - 1.0 MPA Pull of Strength
-

Application Procedure for Joints and full-surface of Boards

1. Fix the boards/panels, leaving a 3-5 mm gap between them. Ensure there is support at each joint both vertical and horizontal.
2. Fill the joint with 45 GSM Mesh dipped in Terrashield Fine Plaster and then fill the rest of joint upto the level of the boards with Terrashield Fine and leave to dry for six hours. After drying if there is any depression between the joint, apply Terrashield Fine across the surface of the joint till it is in level with the boards and let it dry.
3. Now apply Terrashield Fine over a 12 inch area covering the joint along the length of the joint.
4. Place a 12 inch 45 GSM Mesh over the wet Terrashield Fine and remove the excess materials by pressing a trowel blade over it in such a way that the mesh is embedded. Let it dry completely and, then apply another coat over the 12 inch area in such a way that the mesh is concealed. After drying, check for depressions. If any occur, apply Terrashield Fine only to the affected areas.
5. Now apply two coats of Terrashield Fine across the complete surface area of the board & joint to achieve a smooth, even seamless surface.
6. Avoid sanding unless necessary.
7. Surface is now directly ready for paint after it is dry, apply any premium emulsion paints. No OBD.






Video Links for application of JPL Terrashield fine on Gypsum and Fibre Cement boards

Step 1 [Surface coating](#)

Step 2 [Joint Filling](#)

Step 3 [Taping with Mesh](#)

Problems with Conventional Putty and Jointing treatment

Conventional Putty vs Terrashield Fine			
Parameter	Conventional Putty	Terrashield Fine	
Primary purpose	Localised surface correction	Joint treatment + full-surface coating	
Application area	Joints, screw heads, minor patches	Joints, fasteners and entire board surface	
Flexibility	Rigid / brittle after curing	Elastomeric – accommodates micro-movement	
Shrinkage	Prone to shrinkage at joints	Low shrinkage	
Crack resistance	Hairline cracks common over time	Reduced risk of joint read-through	
Adhesion	Moderate, surface-dependent	High adhesion to gypsum & fibre cement	
Layer continuity	Discontinuous (patch-based)	Continuous, monolithic layer	
Paint readiness	Requires primer + paint	Directly paintable after dry	
Long-term finish	Joint visibility over time	Uniform finish, improved durability	

Key Issues with Direct Painting

- **Visible joints and fasteners**
Board joints, screw heads, and surface undulations remain visible, especially under side lighting.
- **Differential absorption**
Fibre cement and gypsum boards have **uneven porosity**, causing patchy paint absorption and inconsistent sheen.
- **Crack formation at joints**
Boards experience minor thermal and structural movement. Paint films alone cannot bridge joints, leading to **hairline cracking**.
- **Reduced paint durability**
Paint applied directly on boards lacks a stabilised base layer, resulting in **early deterioration, peeling, or uneven ageing**.
- **Higher lifecycle cost**
Initial savings are offset by **early repainting, touch-ups, and client dissatisfaction**.



FAQ

How do we fix bubbling?

Scrape the rough areas with a dry blade and apply another coat of JPL Terrashield fine in the effected areas.

How can we prevent bubbling in the future?

Allow each coat to dry and impregnate completely.

Why is no primer required?

JPL Terrashield fine is hydrophobic and won't absorb paint.

How can we maintain product viscosity?

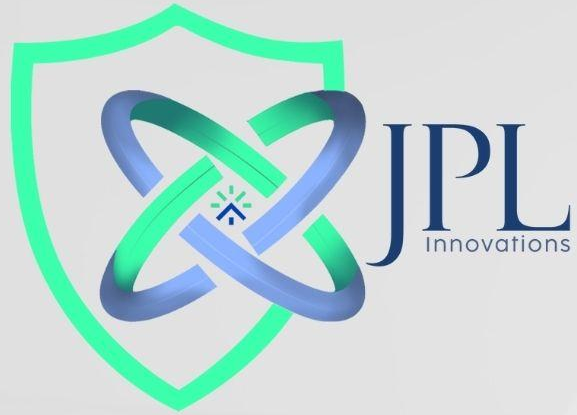
The product retains its viscosity for 6-8 weeks after manufacturing. If thickening occurs, add 500 ml to 1 liter of water to a 20 kg bag and mix well. The material consistency must be such that you are able to hold the material on a paintable plaster blade.

What is the product's shelf life?

The shelf life is 18 months.

What is the pot life of the product?

Pot life is generally 3-4 hours. If the top layer dries, sprinkle water and mix to restore usability.



... Still Have Questions?

We're here to help. Contact our technical team for live demonstrations, custom training, or product support.

✉ Email us at: projects@jplindia.com |

🌐 Visit: jplinnovations.com | 📞 Call us at: +91 9650060448, +911147077520

Head Office Address: 206, Avalon Apartment, 2nd Floor, New Manglapuri, Mehrauli (Near Chattarpur Metro Station, Opp. Metro Pillar No. 46), New Delhi-110030

Factory Address: Bhiwadi, Rajasthan

Haryana | Maharashtra | Tamil Nadu | Karnataka | Kerala | Hyderabad

