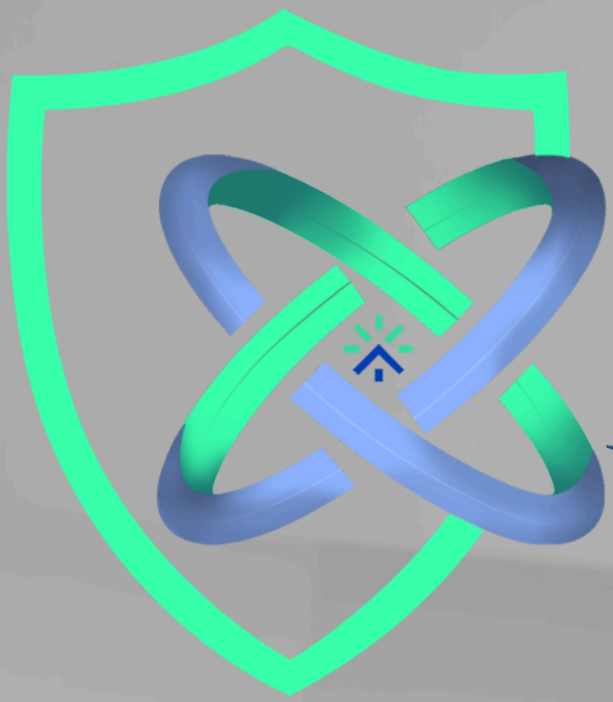


JPL
Innovations

TERRASHIELD FINE

TECHNICAL ADVANTAGES

1

CRACK - RESISTANT

Ideal for surfaces prone to thermal or structural stress

2

ELASTOMERIC & FLEXIBLE

Absorbs micro-movements in substrates without cracking

3

FIRE RETARDENT

Provides enhance safety with built in fire retardant properties, reducing flame spread and smoke generation

4

COST & TIME EFFICIENT

No Putty, Priming & Sanding Required

5

ECO-FRIENDLY

Contributes to IGBC, GRIHA and LEED green building certifications by eliminating ecologically harmful river sand.

6

READY-TO-USE

No site mixing, minimal material wastage

7

NO CURING

No water needs to be sprayed, no protective covering is needed ie product sets and hardens itself.

8

PAINTABLE PROPERTIES

Smooth, blemish-free surface compatible with premium emulsions or Texture Paint on exterior

9

ANTI-FUNGAL

Prevents surface deterioration in damp conditions

APPLICATION PROCEDURE

PRIOR CHECK:

Before application, it is important to ensure that the substrate is:

- Free of chalking, loose sand or particles
- Free from oil and grease stains
- Free from fungus, algae or moss
- That the substrate has not debonded from its sub-substrate
- The substrate is completely dry and in good condition.
- Check for hollow plaster by knocking.

PROCEDURE TO FOLLOW FOR APPLICATION:

Note:

- ***Load the Terrashield Fine on Mivan, Pre-cast Construction Cement/Gypsum Plastered Walls or Pre-painted walls with a trowel or roller in 2 coats up to a maximum thickness of 2 - 2.5 mm.***
- ***Refer to the next page for 45 GSM Nylon Mesh Applicability.***

01 Apply the first coat of Terrashield & allow it to dry for at least 4 to 6 hours.

02 Apply 45 GSM Nylon Mesh while the first coat is wet

03 Apply the second coat of Terrashield with a roller or a trowel.

04 Remove the excess material with emery paper (no. 320) by light sanding vertically and horizontally to get a smooth, seamless surface.

05 The surface is ready to be painted within 96 hours after completion of the second coat.

1.

2.

3, 4, 5

Note: Illustration of Steps

APPLICATION PROCEDURE

NOTE:

- First fill cracks, then apply wall coatings.
- For AAC Blocks and precast panels with a width of less than or equal to 2 ft., embed a 45 GSM nylon mesh across the surface between the first & second coat while the first coat surface is wet.
- On Dry Wall Joints/Pre-cast Joints/ Construction Joints in Mivan embed a 45 GSM mesh with a maximum 150 mm width on the joints covering the joint area completely, between the first coat & second coat while the first coat surface is wet.
- On AAC Blocks, Drywall Pre-cast joints, etc., the mesh must be terminated on the ceiling up to 100 mm (only if the joint terminates at ceiling level).
- Overlapping of the mesh must be avoided on the vertical joints of the mesh.
- On all corners and joints of walls, beams, columns and ceiling, the mesh has to be overlapped to a width of at least 100 mm.
- Only Premium Emulsion must be used for the interiors over Terrashield, and only Anti-Fungal Emulsion must be used for the exteriors over Terrashield where the sub-sub-strate is of AAC Blocks, whether plastered with Gypsum or sand-cement mortar (Interiors or Exteriors) or Dry Walls or Walls with joints.
- On other substrate surfaces, such as MIVAN, RCC, and Cement Plastered (on Mivan/Red Bricks), you may use any paint over Terrashield. Paints may include OBD, Internal/External Emulsion, Premium Emulsions, etc.
- The Terrashield Fine properties are such that after application, the material may sink or form bubbles, which may lead to slight 0.5 -1mm undulations on the surface. Sinking is due to the increment of cracks in the substrate or the sub-substrate. Bubbling is due to the trapped air expanding. This does not constitute product failure. Note: In the above-mentioned event, Terrashield Fine is to be applied again only on the localized areas.
- Breaking of 45 GSM nylon mesh does not constitute product failure, but signifies other serious structural and/or construction issues.

UTILITY AREAS

IDEAL FOR:

- Levelling and finishing walls post-jointing/taping
- Reinforcing weak or cracked surfaces
- Creating a paintable skin over Mivan, AAC, and precast structures
- Both interior and exterior applications in residential, commercial, and industrial projects

RECOMMENDED ON:

- Cement Plastered Surface
- Gypsum Surfaces
- RCC Walls & Ceilings
- Precast Concrete Panels
- Mivan Formwork
- Cement Boards & Calcium Silicate Boards
- Drywall Partitions

COVERAGE

TERRASHIELD FINE

DESCRIPTION	MAX. THICKNESS	AREA IN SQ.FT
Coarse Cement Plastered	2.00 mm	80 – 100
Fine Sand Plastered	2.00 mm	100 - 120
Gypsum Plastered	2.00 mm	150 - 175
RCC Ceiling Surface without Mesh only rendering	2.00 mm	140 - 175
RCC Wall	2.00 mm	140 – 175

UNDERSTANDING SLENDERNESS RATIO

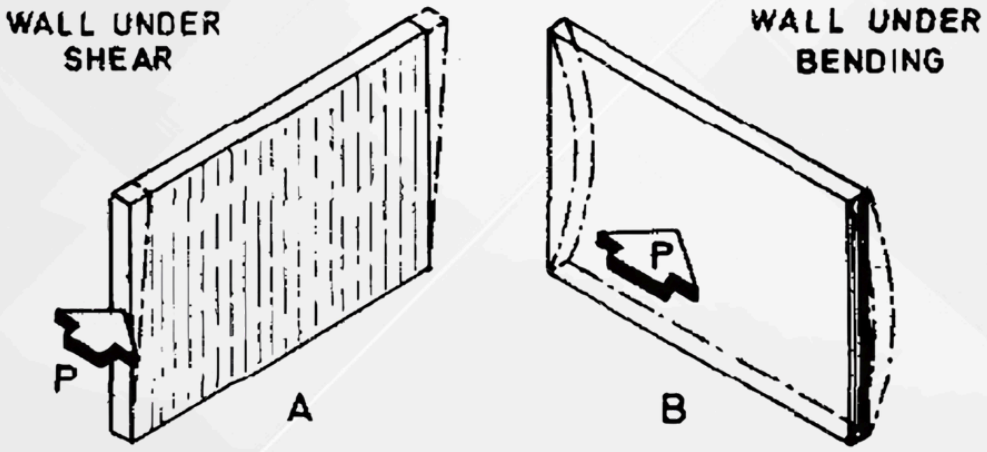
SP - 20 (1991: Handbook on Masonry Design and Construction [CED 13: Building Construction Practices including Painting, Varnishing and Allied Finishing]

Slenderness Ratio = Length of the wall ÷ width of the block.

Table E-5 Span to Thickness Ratio of Non-Load Bearing Panel/Curtain Walls

Design Wind Pressure kg/m²	Vertical Span		Horizontal Span	
	Cement-Lime Mortar 1 : 1 : 6	Cement-Lime Mortar 1 . ½ . 4½	Cement-Lime Mortar 1 : 1 : 6	Cement-Lime Mortar 1 : ½ . 4½
(1)	(2)	(3)	(4)	(5)
25	38	43	54	61
50	27	30	38	43
75	22	25	31	35
100	19	21	27	30
125	17	19	24	27
150	15	17	22	25

Note - Partition walls which are not subjected to any wind pressure, that is, internal partition walls, may be apportioned with the help of the table by assuming a minimum design wind pressure of 250 N/m²



Resistance of brick wall to take lateral loads is greater in case of wall *A* than that in case of wall *B*.

FIG. E-16 ABILITY OF A WALL TO TAKE LATERAL LOADS

As Per the above table:

- A wall 3.5 mtr in length will remain stable if the width of the block is 100m.
- A wall 4.5 mtr in length will remain stable if the width of the block is 150m.

TERRASHIELD PRODUCT ECOSYSTEM

Feature / Criteria	Terrashield Fine
Function	Finishing plaster for seamless, crack-resistant walls
Type	Elastomeric Paintable Plaster
Application Thickness	1 – 2 mm
Primary Use	Surface refinement before painting
Surface Compatibility	AAC, Mivan, RCC, Precast, POP, Cement, Gypsum
Waterproofing Role	Hydrophobic paintable film
Crack Resistance	Absorbs surface-level expansion
Paint Compatibility	Premium & Anti-Fungal Emulsions
45 GSM Nylon Mesh Usage	Recommended for joints and weak surfaces (in ceilings mesh not required)
Ready-to-Use	Yes
Drying Time Before Painting	96 hours
Coverage (per 20 kg)	80 - 175 sq. ft. (surface-dependent)
Interior & Exterior Use	Yes

TEST	TERRASHIELD FINE
Compressive Strength, Mpa ASTM D 695.23	3.2
Tensile Strength, Mpa ASTM D 638.22	5.8
Flexural Strength, Mpa ASTM D 790-17	1.9
Water Absorption,% (for 24 hours) ASTM D 570-22	24.3
Pull off Adhesion, Mpa ASTM D 4541-22	1
Viscocity with water 2:1	17 secs
Pot Life	6 hours
Volatility of Chemicals Detection Test for presence of 28 Carcinogenic Chemicals	Absent
Flame Spread and Smoke Developed Index Test BS 476 Part 7;1997)	Class 1 or A
Flame Spread and smoke developed Index (Test ASTM E84-2021 Standard test method for surface burning characteristics)	Class 1 as per IBC
Chloride, CO2, SO2, NO2, Methane Test	No Gas is present in sample, indicating that the sample acceptable (BQL - Below Quantification Limit)