

NIPPON PAINT LM MAT 300 Fiberglass Mat

Updated Apr'23

NIPPON PAINT LM MAT 300 is a material that apply as reinforcement to non-structural application. It exhibits high tensile strength, enhances crack bridging properties and chemical resistance when integrate into vinyl ester system. It is also compatible with unsaturated polyester, vinyl ester, epoxy and phenolic resins, in order to build up the thickness, improve reinforcement, and chemical resistance.

Product Features:

- Provide reinforcement and thickness build-up.
- Increase tensile strength and crack bridging property.
- Enhance chemical resistance to the system.
- Compatible with unsaturated polyester, vinyl ester, epoxy and phenolic resins.

Uses:

Use as reinforcement in integration with vinyl ester system, it is Ideal for chemically stressed environment, chemical tanks and wastewater treatment tank, chemical storage and spillage area, as well as petrochemical industry.

Material Type	Product Type	Recommended Substrate	Pack Size
Fiberglass Mat	Reinforcement	Concrete / Metal	1 roll with approximately 30kg at 96m ²

Technical Data

Roll Width	: 1 meter
Roll Length	: 96 meter
Area Weight	: 300 g/m ²
Shelf-life	: 24months (stored in room temperature, away from excessive heat and humidity. (storage temperature: 15-35°C ; humidity 35%-65%)

SYSTEM
FRP LINING (CONCRETE)

Primer	: Nippon Paint CORCHEM-PRIME (or) Nippon Paint CORCHEM VE Clear (0.30kg/m ²)
Undercoat	: Nippon Paint CORCHEM VE Clear (0.30kg/m ²)
1 st Intermediate Coat (with laminate)	: Nippon Paint CORCHEM VE Clear (0.70kg/m ²) with Nippon Paint LM Mat 300
2 nd Intermediate Coat (with laminate)	: Nippon Paint CORCHEM VE Clear (0.70kg/m ²) with Nippon Paint LM Mat 300
Top Coat (with surface veil)	: Nippon Paint CORCHEM VE Clear (0.30kg/m ²) with Nippon Paint LM Surface Mat
Finishing Coat	: Nippon Paint CORCHEM VE Pigmented (0.30kg/m ²)

FRP LINING (STEEL)

Primer	: Nippon Paint CORCHEM-PRIME (0.30kg/m ²)
Undercoat	: Nippon Paint CORCHEM VE Clear (0.30kg/m ²)
1 st Intermediate Coat (with laminate)	: Nippon Paint CORCHEM VE Clear (0.70kg/m ²) with Nippon Paint LM Mat 300
2 nd Intermediate Coat (with laminate)	: Nippon Paint CORCHEM VE Clear (0.70kg/m ²) with Nippon Paint LM Mat 300
Top Coat (with surface veil)	: Nippon Paint CORCHEM VE Clear (0.30kg/m ²) with Nippon Paint LM Surface Mat
Finishing Coat	: Nippon Paint CORCHEM VE Pigmented (0.30kg/m ²)

Application Method

Substrate Requirement (Concrete)	<ul style="list-style-type: none"> • Concrete or screed substrate compressive strength should be of minimum 25 N/mm² and adhesive pull off strength of 1.5 N/mm². • The moisture content of concrete shall be < 4% according to ASTM F2659, measured by Tramex meter.
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**Surface Preparation
(Concrete)**

- Concrete substrates must be prepared mechanically using diamond Grinding equipment to remove cement laitance and achieve an open textured surface.
- Crack and hollows should be properly remedied.
- Rough contaminations and high spots can be removed by grinding.
- The substrate should be clean and free from laitance, oil, dust, paint residues, algae, loose and friable material must be completely removed from all surfaces before application of the product.

**Surface Preparation
(Steel structure)**

- All surfaces should be clean dry, and free from contamination. The surface should be assessed and treated in accordance with ISO 8504. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.
- For maximum protection, dry abrasive blast to a commercial blast finish in accordance with SSPC-SP6 or Sa 2½ (ISO 8501-1:2007) with blast profile about 15 to 25 microns.
- If oxidation has occurred between the blasting and application of this product, the surface should be re-blasted to the specified visual standard. Surface defect revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

Application
Intermediate Coat (with laminate)

Apply Nippon Paint CORCHEM VE Clear at rate of 0.30kg/m² on the primed surface, and immediately apply 1st layer of **Nippon Paint LM MAT 300** glass fibre mat over it. Apply another layer of Nippon Paint CORCHEM VE Clear on top of **Nippon Paint LM MAT 300** at rate of 0.70kg/m² immediately.

Use FRP roller (air release roller) to release air and penetrate resin into Nippon Paint LM MAT 300.

Cleaning

Clean up equipment with thinner immediately after use.

Storage and Shelf Life

The product must be stored in accordance with national regulations. Keep the material in a dry, cool, well-ventilated space and away from sources of heat and ignition. Store in 15°C to 30°C temperature, 35-65% humidity condition.

Environmental Conditions During Application

Do not apply when the environment relative humidity exceeds 90%, or when the surface to be painted is less than 5°C above the dew point. Do not apply at temperature below 5°C and temperature above 40°C.

Note

The above information is given to the best of our knowledge based on laboratory tests and practical experience. However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself. We reserve the right to alter the given without prior notice.