Product Technical Manual

Revision Date：2025-03-01 TDS Number：

Product Name：Epoxy Fiberglass Reinforced Plastic(FRP) Anti-corrosive Coating

Version：V 3.1

Product Introduction

Epoxy FRP Anti-corrosion Coating is the dual-component, low-solvent epoxy composite material primarily composed of epoxy resin. When combined with high-performance corrosion-resistant fiberglass fabric or specialized non-woven fabric, it significantly enhances the coating system's anti-corrosion properties, crack resistance, compressive strength, and impact resistance.

Performance Characteristics

1. High Adhesion to Substrates and Primers
2. Enhances Compressive Strength and Elastic Modulus of Substrates as Bonding Agent for Fiberglass Fabric or Non-woven Fabric
3. Excellent Anti-corrosion Performance
4. Strong Adhesion to Epoxy Topcoats

Product Usage

Applied as bonding material for fiberglass fabric layers of environmental engineering floor coating systems.

Physical and Chemical Properties

Item			Technical Specification	Test Standard
Color & Appearance			Uniform color, smooth film	Visual inspection
Drying Time，hr	Surface dry	≤	6	GB/T 1728-1989
	Through dry	≤	24	GB/T 1728-1989
Hardness (Shore D)		≥	70	GB/T 2411-2008
Compressive Strength MPa		≥	70	GB/T 22374-2008 Section

			6.4.7
Bond Strength (to cement), MPa	≥	2	GB/T 16777-2009

Note: The technical parameters herein are derived from laboratory testing and may deviate under actual application conditions. These values are provided for reference only and do not constitute legally binding obligations.

Surface Preparation Before Construction

For all new or existing concrete surfaces, concrete strength must reach C25 or higher. Surface contaminants (dust, loose particles) must be completely removed until sound concrete is exposed. Loose concrete caused by chemical exposure or contaminated concrete by any substances shall be removed down to structurally intact concrete

For painted old floors: Completely grind and remove loose or incompatible old coating layers to expose the concrete substrate. Clean, dry, and intact compatible coatings may be retained. Consult our technical department for further guidance if necessary.

Oil-contaminated Floors: When grease severely affects the adhesion of floor coatings to the substrate, the oil-contaminated surface must be thoroughly cleaned and polished. For detailed technical guidance, please consult our company's Technical Department.

New concrete substrate: Ensure the surface has fully completed the curing period with moisture content below 6%. Proper surface roughness must be achieved using portable sandblasting tools and grinding equipment, which is critical for coating adhesion

Other surfaces: For applications on other substrates, please consult our technical department.

Construction Conditions

Temperature Range:

Ambient Temperature: 5～35℃

Substrate Temperature: ≥3℃ above dew point temperature.

Use Winter-grade formula below 20℃. Use Summer-grade formula above 20℃.

Humidity Control

Relative Humidity: <80%.

Ventilation Conditions:

Ensure well-ventilated and dust-free conditions. Avoid strong airflow to prevent dust contamination.

Special Notes:

Not suitable for areas with direct sunlight exposure or high UV radiation

Construction Method

Troweling: Apply mortar or putty with a flat trowel

Roller coating: Recommended for large-area construction

Spraying: Conventional spray or airless spray equipment can be used

Brush coating: Suggested for small areas with soft-bristle brushes

Construction Parameters

Mixing Ratio (Weight Ratio)	Component A : Component B = 4 : 1. Thoroughly mix after combining
Pot Life (25 ℃)	20 min (extends to 30 min when spread on surfaces). Shorter pot life at higher temperatures. Not recommended above 35 ℃ ambient temperature
Thinner	Add ≤3% of total coating weight. Use compatible thinner
Cleaning Agent	Thinner (same as above)
Drying Time	Surface dry：6 hr；Trough dry：24 hr
Recoating Interval	Ensure complete curing of previous coat before applying the next. Standard interval: 24 hr under normal conditions

The drying time is determined under standard conditions (25℃, 60% humidity) and for reference only. Actual drying speed may vary significantly depending on temperature, humidity, coating thickness, ventilation conditions, and underlying coatings.

Generally, higher temperatures shorten drying time. Lower temperatures extend drying time.

Packing Details

Packed in steel drums

Epoxy FRP Paint Component A: 16 kg/drum

Epoxy FRP Paint (S) Component B: 4 kg/drum

Epoxy FRP Paint (W) Component B: 4 kg/drum

Customized packaging specifications are available based on client requirements.

Storage/Transportation Conditions and Expiration Date

Storage and Transport Conditions: The coating shall be stored in sealed containers within dry, cool, and well-ventilated environment at 5-30℃, away from high temperatures and ignition sources. During transportation, materials must be securely stacked to prevent shifting, and the vehicle compartment shall maintain dry and enclosed environment with moisture-proof and freeze-proof measures.

Shelf Life: The shelf life of the product is 6 months from the date of production when stored in its original unopened packaging under the specified conditions

Safety Precautions

Read the construction instructions and safety labels on the packaging container carefully before use.

Must be applied in well-ventilated conditions. Open flames (e.g., welding, grinding, smoking) and other unspecified ignition sources are strictly prohibited at the construction site.

Wear the certified respirator and other protective equipment during application.

Avoid inhaling paint mist and prevent skin contact with coatings.

If coating splashes on skin: Wash immediately with soap and copious water.

If coating enters eyes: Flush thoroughly with clean water for ≥15 minutes and seek immediate medical attention.

Under normal construction conditions, the dried coating is non-toxic. Please use it with confidence. For detailed toxicological hazards, safety precautions, and first aid measures, refer to the product's Material Safety Data Sheet (MSDS).

Fire and Explosion Hazards

This product is not classified as flammable liquids, explosives, oxidizers, corrosives, toxic substances, or radioactive hazardous materials during storage and transportation. It is not categorized as a hazardous product.

Carbon dioxide, foam, or chemical dry-powder fire extinguishers can be used. If no other fire-extinguishing agents are available, a large amount of water mist can be sprayed. Once the fire is extinguished, the spilled materials must be thoroughly cleaned (refer to the "Spill and Leakage Handling" section).

Fire-Fighting Procedure: Standard protective measures.

Spill and Leakage Handling

Small amounts of leaked or spilled materials can be rinsed away with water. In case of large-scale leakage, contain and recover the materials, and wash the contaminated

ground with water or detergent. The disposal of waste composite materials must comply with the local government's environmental protection regulations.

For more information, please refer to the Safety Data Sheet (SDS) of our products or contact our Customer Service Center.

The indicators and data provided in this document are based on our current level of technical knowledge and practical experience, and are for reference only. Specific guaranteed indicators are subject to the quality assurance certificate or supply contract. The user is responsible for testing the products purchased from our company to verify their suitability for their intended processes and applications, and to achieve the desired objectives. Further application and processing of our products are beyond our control. Therefore, our liability for the products provided is limited to the portion delivered by us and used by you. We do not assume responsibility for indirect losses incurred during the production process using our products as raw materials. Our technical support and customer service center are available to provide consultation and technical services related to our products. We welcome your inquiries and communication via mail or phone.

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