

WANSHIELD®EM168

High-Toughness

Elastic Epoxy Topcoat

Product Description

WANSHIELD®EM168 High-Toughness Elastic Epoxy Overcoat is a two-component, solvent-free elastic epoxy grout. It combines high strength, ductility (elongation at break >5%), minimal shrinkage, corrosion resistance, and exceptional bonding properties, with high adaptability to damp environments. Featuring a 60-minute workability window and rapid strength development, it is specifically engineered for reinforcing concrete/rock expansion joints.

Product Characteristics

Solvent-free with outstanding environmental performance; exhibits lower shrinkage compared to conventional solvent-based low-viscosity grouting materials; demonstrates high bonding strength with concrete and metal components; possesses excellent overall mechanical properties and a degree of toughness.

Recommended Uses

Primarily used for reinforcement and strengthening of concrete and rock cracks in concrete dam surfaces, intake tunnels, tailrace tunnels, spillway tunnels, spillways, powerhouse buildings, and other structures; bonding and reinforcement of metal components to concrete.

Technical Specifications

Physical Parameters

Color	Light gray liquid
Surface Drying Time - BK3	4h
Tensile Strength	≥15 MPa
Elongation at Break	≥5 %
Wet Bond Strength	≥2.5 MPa
Dry Bond Strength	≥3.0 MPa
Solid Content	≥95 %
Water Resistance Pressure	≥1.0 MPa

The values provided herein represent typical test results; actual data may vary slightly depending on environmental conditions. For our company's products, the listed data is not legally binding.

Application Guidance

Application Conditions

Coating environment temperature range: 5 – 35°C

Coating environment humidity range: 30 – 85%

Application Method

Scraping and coating.

Mixing Ratio

Mass ratio: 2.5:1

Pot life: 240 minutes at 25 °C

Ventilation conditions

Ensure the work area is well-ventilated and dust-free, but avoid strong winds that could carry in dust and affect the surface finish. For the safety of workers and to ensure the product performs correctly, all sections of the work area must have adequate ventilation.

Application Steps

After the mortar layer is fully applied, apply the elastic epoxy topcoat using a scraper to cover the mortar layer.

Packaging and Storage

Packaging

Two-component system: Component A 20kg/drum, Component B 8kg/drum.

Storage

Product storage must comply with national regulations. Store in a cool, well-ventilated area away from excessive heat. Containers must be securely sealed.

Shelf Life

1 year

Safety Measures

Warning

May cause eye and skin irritation. Vapors may cause respiratory irritation in sensitive individuals. May cause

skin sensitization. Avoid breathing vapors. Avoid contact with eyes and skin. Use eye, ear, and skin protection, and wear an appropriate respirator to avoid potential respiratory irritation. After use, thoroughly wash skin with water. If discomfort occurs, consult a physician. Wash clothing before reuse. If breathing has stopped, perform artificial respiration, preferably mouth-to-mouth, and seek medical attention. Burns: Exothermic reactions may cause product to become excessively hot. Handle mixtures with caution. Wear gloves. First Aid: If product contacts eyes, immediately flush with water for at least 15 minutes. Remove contaminated clothing and shoes. Wash exposed skin with soap.

Before and during use, observe all safety labels on the packaging. Consult the Safety Data Sheet and comply with relevant national or local government safety regulations.

Statement

The information listed in this document is reliable. Each value provided is calculated as theoretical data based on the product formulation. Upon request, our company can disclose the internal standard measurement methods used to determine any of the above data. Since usage conditions are beyond the manufacturer's control, this information is provided without warranty. The product is intended for professional use only. For any inquiries, please contact our company.

Our Technical Support and Customer Service Center is available to provide consultation and application technical services regarding the product. We welcome your inquiries via mail or phone. National Customer Service Hotline: 400-059-1116 ext. 3.