

Shield

High-Performance Recycled Glass Coating for Water Infrastructure



DESCRIPTION

A high-performance coating made from recycled glass, engineered for water and wastewater treatment plant repairs. Suitable for use on concrete, brick, blockwork, and steel, it provides durable, long-lasting protection in harsh environments.



KEY FEATURES

- Tough and Long-Lasting – Creates a hard-wearing surface that resists damage.
- Waterproof and Acid-Resistant – Protects against water, acids, and harsh chemicals.
- Chemical Resistant – Tested against acids, alkalis, and hydrogen sulphide.
- Flexible Yet Strong – High compressive strength while staying flexible.
- Strong Adhesion – Bonds well to brick, concrete, and steel.
- Drinking Water Safe – Certified for use in potable water systems.
- Eco-Friendly – Made from recycled glass.
- Suitable for walls, ceilings, and floors in: wastewater plants, pump stations, water treatment facilities.



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HEALTH AND SAFETY

Mastermix Shield is non-toxic, cement-based and free from aggressive chemicals. While it doesn't emit harmful gases, ensure good ventilation in confined spaces (e.g. water tanks).

PREPARATION

The substrate must be clean and free from loose material.

Wash with a high pressure water system (3,000-10,000 psi), degrease with a no residue degreaser if necessary to affect a clean surface. Repair any cracks, holes, etc with a thick mix of Multi-Cote, or MasterMix Rapid Repair for any large problem areas. With any existing repairs it may be prudent to apply a test cover of Shield to test its adhesion. If Shield does not adhere, removal of that product is required.

MIXING

Mix Shield in a suitable container with a powered mixing device. Mix with clean potable water at a ratio of 300mls water to 1kg of product. Mix well for 2-3 minutes or until a creamy consistency is achieved. Rest for 5 minutes then remix adjusting the water if necessary to gain a consistency of thick paint.

APPLICATION

Apply with a spray unit suitable for cementitious based products to a thickness of 3-5mm. 2 coats maybe required to achieve this. If a second coat is required allow 3-4hrs between coats for the product to set - it should be dry to the touch. Temperature and air movement can affect the set time, allowances will need to be made for this. Shield may also be brush or roller applied for smaller repair areas.

Do not apply under 7°C ambient temperature as this could affect the cement setting. Allow 3-4 hours curing, or until the product is dry to the touch before putting into service.

Disclaimer: Technical details and recommendations are based on our best knowledge and experience. The user must ensure suitability for the specific project before application, and is fully responsible for the product's use and its consequences.

TECHNICAL DATA

Adhesion Strength	> 2.00 N/mm ² (tested on brick, concrete, and steel)
Comprehensive Strength	> 20 MPa while remaining flexible (Tested to ISO 13007)
Chemical Resistance	Yes. Tested in Sulphuric, Hydrochloric, Lactic Acids, and Caustic Soda
Waterproof	Yes
Working Time	Becomes tacky in approx. 30 minutes at 16°C
Cure Time Between Coats	3-4 hours
Application Temperature	Do not apply below 7°C
Potable Water Safe	Yes (AS/NZS 4020:2005 compliant)
Coverage (Approx.)	10kg @ 3 mm: 2 m ² 10kg @ 5 mm: 1.25 m ² 20kg @ 3 mm: 4 m ² 20kg @ 5 mm: 2.4 m ²
Shelf Life	6 months in original, sealed container (store in cool, dry area)
Design Life	Tested in pH 3.5 sewer conditions and verified for 50+ years

WARRANTY

Warranties may be offered, subject to project assessment and application by a MasterMix-approved applicator.



Contact our Technical Department for further information and expert guidance on your application.

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