

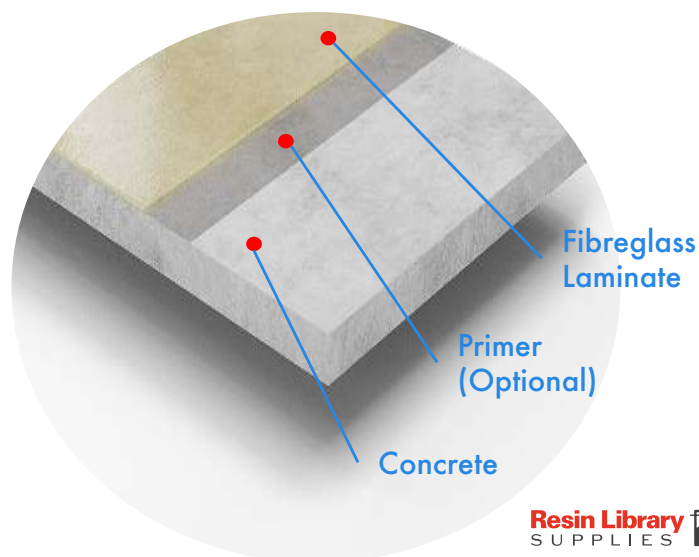
Fibreglass (GRP) Kit for Concrete

Ideal for Linings, Coatings & Repairs

Product Overview

A fibreglass membrane designed to protect, repair and restore concrete surfaces, extending their operational lifetimes.

Ideal for: concrete structures currently covered by failing or damaged membranes, or surfaces where a protective lining or coating is required as a pre-emptive form of protection.



Resin Library
SUPPLIES

Benefits



Fast Cure Times

Partial cures within 1 hour



Water Resistant

Seamless surfaces provide resistance to water and other substances across its lifetime



Ease of Installation

Each kit comes with materials and tools with a range of detailed guides available.



Excellent Bonding

Fibreglass, with a primer, forms a strong unified bond with concrete.



Strong & Durable

Each kit comes with materials and tools with a range of detailed guides available.



Chemical Resistance

Demonstrates broad chemical resistance to selected chemicals

Application Characteristics

Installed via hand-layup, this fibreglass-based concrete kit is designed to create seamless coatings and repairs with excellent adhesion, contouring to the main surface and high strength-to-weight ratios that can also be enhanced with added layers.

Reaching a partial cure in as little as an hour, the laminate can be abraded, making it consistent with the underlying surface. Thereafter, a protective topcoat/flowcoat can be applied for both added protection and aesthetic purposes.

Mechanical properties enable the system to accommodate concrete expansion/contraction.

System Design

MATERIALS		SPECIFICATION
PRIMER (RECOMMENDED)		0.5 kg/m ²
FIBREGLASS LAMINATE	POLYESTER RESIN	1.5 – 1.7 kg/m ²
	GLASS FIBRE MATTING	600 gram CSM (single layer)

Note: coverage levels will vary with surface profile and temperature

WARNING! Read the Safety Data Sheets (SDSs) available for download on the product page. Wear appropriate protective eyewear, clothing, and gloves and other PPE. Perform a full risk assessment, method statement and COSHH form in advance.

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Laminate Mechanical Properties

PROPERTY	VALUE	STANDARD*
THICKNESS	1.20 +/- 0.15 mm	-
SHORE D HARDNESS	86.2 +/- 1.4	ISO 868
DENSITY	1.44 +/- 0.01 kg/m ³	ISO 1183-1
WEIGHT/AREA	1.9 +/- 0.1 kg/m ²	-
TENSILE STRENGTH	81.9 +/- 8.5 MPa	ASTM D3039
TENSILE MODULUS	6552 +/- 819 MPa	
FLEXURAL STRENGTH	183.6 +/- 26.8 MPa	ASTM D7264
FLEXURAL MODULUS	5364 +/- 507 MPa	

*Data based on third-party, independent testing

Substrate Requirements

Concrete and equivalent substrates (e.g. cement mortar and stone) should be free from dust, debris, grease and other contaminants. Prepare with blast cleaning or grinding. More invasive surface preparation may be required if an existing membrane is on the surface. The substrate should be dry to 75% RH as per BS8204 and should have no rising damp and ground water pressure. Concrete, mortar and equivalent should be more than 28 days old. A resin primer (optional) is strongly recommended as a base layer directly below the Fibreglass Repair System.

Limitations

- Not intended as a substitute for structural concrete repair.
- Not suitable for crack filling or injection into cracks
- Not intended to repair underlying concrete structures
- Do not apply to damp concrete or equivalent

Example Applications

It is therefore suitable for the repair, refurbishment and pre-emptive protection of pond and water feature linings, concrete roofs, balcony, walkway and terraces, and general waterproofing projects. May also be suitable for the repair of concrete structures housing chemicals, such as storage tanks and secondary containment bunds.

Surface Design

Suitable for interior, vertical and overhead repairs and refurbishments of existing concrete structures, such as:

- Corners and edges & vertical surfaces
- Interior and exterior surfaces
- Surfaces housing water*
- Surface containing chemicals**
- Overhead surfaces***

*requires suitable topcoat/flowcoat resin to be applied for full protection; **requires chemically resistant flowcoat/topcoat
***a solid platform (e.g. timber or plywood) should be in place to support

Designed as a protective lining and coating system for concrete-based surfaces as part of a patch repair, refurbishment or as a pre-emptive protective layer.

Strong adhesion to concrete and mortar with the addition of a resin primer. Also designed to bond to concrete surfaces covered in fibreglass membranes as part of a repair/refurbishment system.

Installation Guidance

Apply within a temperature range of 10 – 25 °C and a maximum air humidity of 85%.

Apply the system and ensure the repair does not move prior to curing (see Curing Times table).

Do not create layers exceeding 4 mm (approx. 3 layers of laminate) without allowing time to cure; exotherms can form and lead to shrinkage.

Apply a thin layer of primer (optional) to the repair area and wait until tacky. Catalyse a workable amount of polyester resin and apply a thin layer to the concrete. Place dry or pre-wetted matting onto the damaged area. Saturate with resin and then consolidate using a paddle roller. Allow to cure in accordance with cure adjacent times.

Topcoat application: confirm with manufacturer of paint before using.

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Performance Considerations

With the aid of a resin primer, fibreglass is able to bond seamlessly to concrete, acting as a protective shield. Coupled with the superior mechanical and waterproofing properties of the system, users can expect a more durable surface in the form of a new installation, upgrade or repair.

This ultimately means a reduction in the need for future repairs, maintenance and cleaning and an overall extended lifetime. An aesthetic finish can be created with the inclusion of an added topcoat/flowcoat or a compatible paint system.

Environmental and health considerations are controlled during the manufacture and storage of the products by Resin Library. The performance of this product is dependent on the skill of the user.

Ordering

Resin Library Fibreglass Repair Kits for Concrete are available online via
www.resinlibrary.com/product/fibreglass-grp-repair-kit/



Kit Sizes

	FIBREGLASS REPAIR KITS						
SIZE (m ²)	0.1	0.25	0.5	1	2	3	5

Cure Times

	10°C	20°C
PARTIAL CURE	4 hours	1 hour
FULL CURE	48 hours	24 hours

Storage

	RECOMMENDATIONS
SHELF LIFE	6 months from date of receipt in original, unopened containers Store in a cool, dark and dry environment
STORAGE CONDITIONS	Keep away from sources of ignition and contamination. Store in original sealed container at temperatures under 20 °C. Protect from direct sunlight.

Tool Cleaning

Tools should be soaked in acetone prior to curing to prevent resin hardening in between usage. Resin hardening occurs after 20 minutes.

Note

No resin system is completely resistant to changes in colour over time. Colour changes in polyester resin topcoat are dependent on UV exposure, temperatures and duration of water exposure. Such changes can be offset by the addition of a suitable topcoat.

Disclaimer

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