SHIMICOAT Underwater Repair Putty – Epoxy Mortar Glue
UNDERWATER REPAIR PUTTY – Three-Component Structural Epoxy Adhesive
UNDERWATER REPAIR PUTTY is a high-performance, solventless, three-component epoxy adhesive that cures at room temperature to form a tough, infusible compound with excellent mechanical strength and long-lasting adhesion.

Key Characteristics:

- Strong Bonding Performance – Adheres reliably to properly prepared metal, wood, concrete, and ceramic substrates
- High Mechanical Strength – Withstands mechanical stress and impact in demanding environments
- Thixotropic Consistency – Ideal for vertical or overhead applications, allowing precise placement without sagging
- Multi-Material Compatibility – Suitable for bonding dissimilar materials
- Room Temperature Cure – No need for special curing equipment or elevated temperatures

Recommended Applications:

- Bedding of ceramic wear tiles and steel wear plates to metal surfaces
- Grouting of reinforcement bars (rebar) into concrete or masonry
- Gap filling, stopping, and sealing in structural repairs or industrial assembly
- Vertical and overhead adhesive repairs where flow control is critical

A solvent-free, advanced composite system engineered for multipurpose, high-strength casting and grouting applications. This infusible polymer offers:

- Exceptional mechanical strength under both compression and tension
- Outstanding chemical and corrosion resistance
- Thermal stability for reliable use in both hot and cold climates
- Versatility in application on steel, wood, and concrete surfaces

Ideal for demanding industrial environments requiring durability, resistance to harsh conditions, and long-term structural integrity.

Applications

This high-performance composite system is suitable for a wide range of industrial, civil, and structural uses, including:

- **Civil Works & Infrastructure**
  - Foundation bedding
  - Slipway foundations
  - Road and bridge grouting
  - Bedding for rails
- **Industrial & Structural Repair**
  - Crusher backing and equipment grouting
  - Floor re-levelling
  - Concrete repair and crack injection
  - Wet-to-dry concrete bonding
- **Precision Applications**
  - High-strength adhesive and casting
  - Mould making
  - Chemical anchoring
  - Precision engineering grouting

Key Features

- **High Mechanical Strength** Designed to withstand heavy structural loads in both compression and tension
- **Exceptional Adhesion** Bonds strongly to steel, concrete, wood, and other substrates
- **Wide Chemical Resistance** Durable in harsh chemical and corrosive environments
- **Fast Curing Time** Achieves functional cure in as little as 6 hours
- **Zero VOC, Solvent-Free** Environmentally friendly and safe for enclosed spaces
- **Cold Weather Application** Cures reliably even in low-temperature or adverse conditions
- **Underwater Capable** Suitable for wet, submerged, or tidal zone applications

Dry Time at 25°C

Pot Life:	45 minutes at 25°C
Tack Free:	2-3 hours
Thin Film Set:	8 Hours (Min, depending on temperature and humidity)
Deep Cast Set:	24 Hours (Min, depending on temperature and humidity)
Dry Cured:	12-16 hours – Foot Traffic (depending on temperature and humidity)
Fully Cured:	7 days (Vehicle Traffic)
Re-Coat:	Over night

Clean Up

EpoThin - Thinner & Diluent (Blend of Solvents).

Preparations

Clean and dry surface. Ensure surface to be coated is free of all dirt, grease, oil, paint, curing agents and other contaminants. Removal of Oil Contamination by degreaser and alkaline cleaning pressure wash
Acid-wash to enhanced surface porosity and etch the surface. Ensure moisture free surface. Allow to completely dry, run Dry Test. Place a piece of plastic over a small area, tape the edges and leave for 1 hour. Remove plastic, if there is no moisture on either surface, concrete is sufficiently dry. Ideally, always consider surface grinding and removal of loose materials. Grinding is always advisable prior to application of all Shimicoat Epoxy products, to maximize adhesion. For further information, please refer to SHIMICOAT Instruction for "Surface Preparations".

Installation Guidelines

Mixing Instructions

- Use a slow-speed mechanical mixer for optimal blending.
- Add Component B into Component A, not the reverse.
- Mix until the blend is uniform in colour and consistency, avoiding air entrapment.

Application

- Immediately pour or apply the mixed product to the target area.
- For underwater or submerged applications, the resin will naturally displace water from the cavity during application.

Bulk Filling for Large Cavities

- For deep pours or large voids Magmapoxy can be bulk-filled with 600µ silica sand, up to triple parts by weight.
- This reduces resin volume, lowers exothermic reaction in hot climates, and minimizes post-cure shrinkage.
- The kit is designed to allow easy addition—simply top up the mixed resin container with silica sand at the recommended rate.
- Aggregate-filled product retains high strength and pourability.

Features

Underwater Repair Putty – Epoxy Mortar Glue
High-Performance Epoxy Mortar System
Underwater Repair Putty is a premium-grade repair solution engineered for civil construction applications. It comprises 100% solid clear epoxy resin reinforced with Super Ceramic Filler materials, delivering unmatched durability and surface hardness. This kit is specifically designed for installers and contractors seeking a fast, strong, and long-lasting repair system prior to protective coating application.

Key Features:

- **Advanced Super Ceramic Filler Technology** Delivers exceptional reinforcement and surface integrity.
- **Superior Epoxy Structure** Ensures maximum bonding and mechanical strength.
- **User-Friendly Formulation** Lightweight, easy to mix, and simple to apply.
- **High Compressive Strength** Withstands significant structural loads.

- **Thermal Stability** Maintains performance across a wide temperature range.
- **Longevity** Engineered for service life exceeding 20 years.
- **Ideal Rheology** – Suitable for both horizontal and vertical applications without sagging.
- **Enhanced Fire Resistance** – Improved fire rating for safety-critical environments.
- **Modern and Hygienic Finish**
  Functional and economical solution for civil, commercial, and industrial use.
- **Chemical and Traffic Resistance**
  Withstands harsh chemicals, heavy pedestrian use, and vehicular traffic.
- **DIY Friendly** – Easy to use for both professionals and trained individuals.

Available in Small, Medium, and Large kits, SHIMICOAT Underwater Repair Putty is your go-to solution for surface restoration, crack repair, and substrate preparation in demanding environments.

Specifications

Physical & Chemical properties of Underwater Repair Putty:

Property	Details
Mixing Ratio	4:1 by Weight or Volume – Plus Ceramic as required to your desired Viscosity
Application Temperature	Room temperature (typically 10°C to 30°C)
Curing Conditions	Cures underwater or in wet/oily conditions
Full Cure Time	~24–48 hours (depending on temperature and thickness)
Pot Life	~15–30 minutes at 20°C
Coverage	~1.5 m²/kg at 500 micron (0.5 mm) thickness
Chemical Resistance	Excellent against water, oils, and many chemicals
Adhesion Strength	High (especially to damp steel, concrete, brick)
Shelf Life	12 months (unopened, cool dry storage)

Putty Consistency – Guideline

Consistency	Fix Quantities CANNOT be changed		Adjust As Required	Application
Consistency	**Part A**	**Part B**	**Part C**	**Application**
Thin Slurry *Syrup*	**4 Parts / 80gr**	**1 Part / 20gr**	**20% / 20gr**	**Hairline Repairs**
Thick Slurry *Honey*	**4 Parts / 80gr**	**1 Part / 20gr**	**50% / 50gr**	**Small Cracks**
Thick Slurry *Tomato Sauce*	**4 Parts / 80gr**	**1 Part / 20gr**	**75% / 75gr**	**Large Surface Fill**
Thick Slurry *Mayonnaise*	**4 Parts / 80gr**	**1 Part / 20gr**	**100% / 100gr**	**Fill & Repair Larger Cracks**
Thick Slurry *Mash Potato*	**4 Parts / 80gr**	**1 Part / 20gr**	**150% / 150gr**	
Thick Slurry *Peanut Butter*	**4 Parts / 80gr**	**1 Part / 20gr**	**200% / 200gr**	

Helpful Hints:

- Ensure surface to be coated is dry. Moisture can cause blooming and delamination.
- Pot life is approximately 45 minutes, work within 30min to ensure ideal rheological properties and easy flow application.
- Use steady long strokes and avoid overworking the roller or pushing your roller too quickly as this may trap air bubbles in the coating.
- Do not apply, if the rain is expected within 24 hours of application.
- Not recommended for use below 10°C or above 35°C.
- New concrete should be allowed to cure fully (at least 20days) before application.
- Keep the containers (Pail or Cans) sealed when not in use.
- Avoid application on hot surface.

Drying Times

SHIMICOAT Underwater Repair Putty dries in 8-20 hours. High temperatures and windy conditions may speed up the curing time.
Keep foot traffic off for, at least 16 hours and vehicles for at least 7 days. Full hardness is achieved after 7 days.

Temp °C	Pot Life (min)	Surface Dry (Hours)	Initial Cure (Hours)	Recoat Time (Hours)	Fully Cured (Days)
10°C	45	12	24	24	7 Days
20°C	40	10	18	18	7 Days
30°C	35	8	16	16	7 Days

Applications:

- Splash zone corrosion protection on offshore structures
- Submersible pumps, transformers, and valve coatings
- Pipework and tank internals/exteriors repair
- Emergency sealing of oil/water leaks, even when ongoing leakage
- Repairing or coating underwater concrete structures
- Sealing joints/flanges under wet or submerged conditions
- Underwater repairs such as Boat hulls, Pipelines, Tanks, Columns and Pillars
- Long-term repairs to oil or water-exposed surfaces.

Combatting Corrosion in Offshore Environments with SHIMICOAT
The offshore environment is inherently corrosive. Continuous exposure to wet, harsh atmospheres—especially in splash zones and underwater areas—combined with erosive forces from waves and floating debris, accelerates the degradation of equipment and structural components. If left untreated, corrosion can lead to severe structural damage, leaks, ruptures, costly downtime, and significant environmental risks.
SHIMICOAT In-Situ Protection & Repair Systems
SHIMICOAT offers innovative in-situ solutions specifically designed for splash zones and submerged structures such as risers and platform legs. These systems require minimal surface preparation and are engineered to perform in some of the most challenging marine environments.
In addition to our comprehensive product range, SHIMICOAT provides **surface-tolerant technologies** that are highly effective even on wet, oily, or sweating substrates. These products are engineered for exceptional adhesion to steel, regardless of immersion conditions.
A prime example is **SHIMICOAT**, a brush-applied product that displaces water on contact, forming a superior bond. It eliminates the need for hot work, cures underwater, and offers robust protection against erosion and corrosion.
Why Choose SHIMICOAT?

- Cures underwater and in wet conditions
- No hot work required
- Minimal surface preparation
- Strong adhesion to steel
- Long-lasting, permanent protection
- Proven performance globally

SHIMICOAT's surface-tolerant repair systems reduce maintenance costs and extend the life of your assets—above water, in splash zones, and underwater.

Underwater CURECOAT is a two component solventless epoxy adhesive which solidifies at ambient temperature to form a strong, tough material, possessing good mechanical properties and adhering strongly to suitably treated metal, timber and concrete surfaces. It has been specifically designed to allow curing to take place unimpeded by the presence of water.
Underwater CURECOAT can be used for underwater repairs and applications where dampness is present or the item being treated is subject to immersion prior to the Underwater CURECOAT being cured. Typical applications are the underwater patching of boat hulls, tanks, pipelines as well as the repair or patching of tanks and concrete structures subject to immersion within a short time of application. Tidal zone repairs to steel and concrete wharf piles and under bridge repairs are also satisfactorily carried out using Underwater CURECOAT

Get in Touch
For more information on SHIMICOAT's industrial solutions, contact your local SHIMICOAT representative today.

STORAGE

The products shall be stored out of direct sunlight and heat at all times. The shelf life of the product is 24 months, mix uniformly for 3 minutes prior to use.

DISCLAIMER

Material Safety Data Sheet, Technical and Environmental Data Sheet can be provided upon request.
The information provided in this document is guidance only and considering the uses of this product are beyond the seller's control, the product is sold without guarantees or warranties. Warranties and guarantees shall be governed by SHIMICOAT Standard Terms of Sale. The purchaser shall make its own tests to determine the suitability for their specific application, and Shimicoat Pty Ltd is taking no responsibility for misuse of the product. The purchaser assumes all risk of use and handling of this product. This product will be happily replaced or credited back if defective. Beyond this, Shimicoat Pty Ltd is not liable for any damages caused by this product or its use. *This information and all further technical advice are based on our present knowledge and experience.*
The customer is not released from the obligation to conduct careful inspection and testing of supplied goods.