Rezayat Protection Coatings Co. Ltd.

RESIMORTAR TH

HIGH BUILD SOLVENT FREE THREE COMPONENT EPOXY RESIN REPAIR MORTAR

PURPOSE

- For filling deep pockets as well as filling shallow honeycombed concrete
- Rapid patching of damp or dry substrates
- Waterproofing of water retaining structures, maintenance of sewerage structures

PROPERTIES

- With remarkable thixotropic properties capable of 50mm build in vertical and overhead conditions allowing deep penetration into the narrowest recess.
- Ideal substrate as underlayment for linings and coatings
- Fast curing compound, long downtime is avoided
- Will cure under damp conditions
- Inherent strength high, excellent chemical and abrasion (traffic areas) resistance
- Surface roughness improves overcoat keying, also provides non – absorbent surface
- Flexible materials and can be squeezed into 20-30mm cavities

TECHNICAL DATA

Density (BS 6319 Part 1)	:	1.9 kg/liter
Compressive Strength (ASTM C109)	:	85 MPA
Flexural Strength	:	20 MPA
Water Absorption	:	<0.3%
Service Temperature	:	0˚C – 70˚C

Chemical Resistance

The following results were achieved under totally immersed condition at ambient temperature:

Sodium Hydroxide	**50%**	**Excellent**
Hydrochloric Acid	**10%**	**Excellent**
Sulphuric Acid	**10%**	**Excellent**
Diesel Fuel & Petrol	**100%**	**Excellent**
Hydrocarbon	**100%**	**Excellent**
Phosphoric Acid	**25%**	**Very Good**
Lactic Acid	**10%**	**Very Good**
Citric Acid	**5%**	**Excellent**
Tartaric Acid	**10%**	**Excellent**
Sugar Solution	**Saturated**	

Pot Life

@20˚C	:	120 mins
@30˚C	:	50 mins
@40˚C	:	30 mins

Initial Hardeness

@20˚C	:	24 hrs
@30˚C	:	16 hrs
@40˚C	:	8 hrs

Full Cure

@20˚C	:	3 days
@30˚C	:	2 days
@40˚C	:	1 days

Mixing Ratio (in kilo)

- Part A : Part B : Part C
- Base : Hardener: Admix (Powder)
- 4 : 2 : 20

APPLICATION

Surface Preparation

New Concrete must be a minimum of 28 days old. Curing compounds and sealer coatings should all be removed. Green concrete must be allowed to dry out after wet curing for at least 2 days.

Old Concrete, the surface must be clean, rough and free of weaknesses. The surface to receive the mortar should be prepared to be free of all dust, oil, paint, grease and all foreign matter should be removed.

The finished prepared cavity should be mechanically abraded to expose all aggregate in the concrete. Imbedded steel elements should be made rust free where exposed.

In the condition where oil and grease has penetrated into the substrate, the concrete made by sound removing all foreign materials by steam cleaning and treating with an effective chemical degreaser.

Old steel surfaces, any corrosion or loose must be removed to a clean and bright condition. Grit blast is recommended for this purpose. Immediately after cleaning and dusting, the surface should be primed and repair to follow using **Resimortar TH**.

Priming

The surface must be primed using **Rezkem EP** epoxy primer. The primer should be mixed in the proportion supplied by adding the hardener tin to the base tin and thoroughly mixed. Apply the primer to the prepared surface by scrubbing well taking care that all imperfections are properly filled, making sure to eliminate any puddling. The primer must be left out for about 30 minutes for a full wetting out and absorption.

Mixing

In order to obtain a homogeneously mixed mortar, it is essential that the materials are thoroughly mixed using a heavy duty slow speed drill. The entire container of hardener should be emptied into the base container and mixed for about 2 minutes. Add the filler aggregate while mixing is in process slowly until the components are thoroughly blended.

Application

Apply the epoxy mortar **Resimortar TH** to the prepared substrate when the primer is in the "tacky" stage, pressing firmly into place by hand.

Thoroughly compact the mortar especially in presence of reinforcement by pressing firmly to ensure good bonding. The **Resimortar TH** should be worked behind reinforcing and all protrusions with a gloved hand.

Resimortar TH can be applied in a single pass up to a maximum thickness of 50mm and can be built up in thick layers in vertical and overhead conditions.

However if the surface is extremely rough and cavities are in great number such as a honeycombed or segregated concrete environment, it would be possible to force the mortar into the irregular surface which can stand up to the depths of 50 mm. in the overhead condition where soffits are to be repaired from below. To ensure a dense good finish, a steel trowel may be used.

For surface lining, apply **Resimortar TH** to the prepared surface using a steel trowel or spatula. Press firmly onto the substrate to ensure total penetration into any surface irregularities, and to ensure good complete compaction of the lining material. To eliminate potential sagging of the mortar or lining, do not exceed the recommended thickness above (15mm). Preferably apply more layers where a higher build is required.

Where thicker sections are required and there is sufficient time to build the product up in layers, the intermediate surface should be scratched – keyed to provide good adhesion for subsequent layers.

The application of additional layers should follow as the surface of intermediate layer is touch dry. **Resimortar TH** should be finished bi the use of wood trowel and finally closed with a steel trowel

Overcoating

Resimortar TH is extremely durable and resistant to a wide range of chemicals. To ensure a durable repair and where a higher degree of chemical protection and product compatibility is required. **RezCoat** recommends the use of most **RezCoat** Polyurethane Protective Coatings which may be applied.

Consult RezCoat for details.

Packaging

Resimortar TH	:	26kg/pack
Rezkem EP (concrete)	:	5 kg/pack
Rezkem Solvent SC111	:	18 ltr/pail

Coverage

Resimortar TH (1mm THK)	:	11.5 m^2
Rezkem EP (concrete)	:	5-7m^2/kg

HEALTH AND SAFTETY

All products contain solvent or resin, should not come in contact with skin, eyes or swallowed. People sensitive to resin and chemical should wear goggles and PVC gloves. Avoid contact with skin and eyes when handling the products.

Do not use solvent for skin remover of resin, instead a barrier cream remover must be used before it gets harden. Should accidental eye contamination occur, wash thoroughly with plenty of running water and seek medical advice. Ensure plenty of ventilation when using resin and solvent containing materials.

Storage

Store under cover out of direct sunlight in dry area, the product should be unopened. All products have 12 months shelf life. If stored at high temperature, the shelf life may be reduced.

Cleaning

Tools and equipment should be cleaned with **Rezkem Solvent SC111** cleaning solvent. Do not use the solvent for thinning, as it will inhibit the materials properties.

Fire

Resimortar TH and **Rezkem EP** primer are non –flammable products.

Rezkem Solvent SC111 is a flammable material; avoid formation of flames and sparks near the product.

In the event of fire, use CO_2 or foam extinguisher. Do not use water.

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