

**Repair, Reinforcement and Restoration /  
Epoxy Based Repair, Renovation and Reinforcement Products****REPOX<sup>®</sup> 301**  
Epoxy Repair Mortar**DESCRIPTION**

**Epoxy resin** based, three component epoxy repair mortar, resistant to corrosive chemicals. Used in repairing concrete surfaces which are exposed to mechanical impacts.

**APPLICATION AREAS**

- Indoor and outdoor
- Repairing reinforced concrete,
- Protecting and repairing subsurface structures,
- Repairing and maintaining marine structures (such as docks, bridges),
- Assembling and repairing Crane beams and base plates that require high strength,
- Repairing ceilings, columns and beams.

**TECHNICAL PROPERTIES**

<b>Components</b>	A: Epoxy resin, B: Hardener, C: Quartz aggregate
<b>Color</b>	Sand grey
<b>Mixture Ratio (5 kg)</b>	A: 510 g, B: 240 g, C: 4.25 kg
<b>Mixture Ratio (25 kg)</b>	A: 2.55 kg, B: 1.2 kg, C: 21.25 kg
<b>Mixture Density</b>	~ 1.9 kg/L
<b>Application Temperature</b>	Between +10°C and 30°C
<b>Compressive Strength</b>	≥ 80 N/mm <sup>2</sup> 7 days (EN 12190)
<b>Flexural Strength</b>	≥ 35 N/mm <sup>2</sup> 7 days (EN 196-1)
<b>Bond Strength by Pull-off</b>	≥ 2 N/mm <sup>2</sup> 7 days (EN 1542)
<b>Modulus of Elasticity</b>	155.000 kgf/cm <sup>2</sup> (EN 13412)
<b>Pot Life</b>	~ 50 minutes
<b>Complete Curing Time</b>	7 days (20°C)
<b>Service Temperature</b>	-15°C / +60°C

**ADVANTAGES**

- Provides high mechanical strength.
- Highly resistant to abrasion and impact.
- Resistant to chemicals, water impermeable.
- Does not require solvent.

**CONSUMPTION:**

Appr. 1.9 kg/m<sup>2</sup> (for 1 mm thickness)

**PACKAGING:**

Sets of 5 kg and 25 kg (A+B+C) tin cans

## APPLICATION

### PREPARATION OF THE SURFACE

- The surface must be free of weakly adhered parts, clear of materials which prevent bonding, such as dust, oil, paint, curing agents, detergents and mold release oils and dry. If the surface is created by fracturing, the edges must be as steep as possible.
- If the surface is concrete or plaster, it must be cured, if it is metal, it must be cleaned from rust and oil.
- The surface can be primed with **REPOX A Solvent Free Epoxy Surface Primer** before the application.

### MIXTURE

- REPOX 301 is packaged in appropriate quantities as three components.
- Add component B (hardener) on component A (epoxy resin) and mix with a 400 - 600 rpm drill for 1 - 2 minutes. Then slowly add the C component (aggregate) into this mixture and mix again for 3 - 5 minutes until it is homogeneous.
- The ingredients are packaged in the correct mixing ratio. Respect this ratio if only part of the product is to be used.

### APPLICATION

- Apply the mortar with a trowel with a thickness between 4 - 30 mm on the primer that is not completely dry. The thickness should not exceed 30 mm in a single coat. It may be necessary to apply 15 - 20 mm thick on vertical surfaces. In such cases, re-priming is required before applying a second coat. It may be necessary to use molds for repairs to be made on ceilings and beams. Each coat should be applied thoroughly compacted.
- After curing at 20°C for 7 days, the mortar will be resistant to mechanical loads and corrosive chemical effects.

### CAUTION

- Avoid application at temperatures below +10°C and above +30°C.
- Mix with an appropriate mixing drill, do not mix manually or with a trowel.
- Mix in appropriate ratios. Do not add water or solvent.
- Working and curing times of epoxy resin based products depend on ambient and ground temperature. As viscosity increases at low temperatures, the amount of consumption also increases. The chemical reaction slows down, thus extending the pot life and working time. The opposite is the case at high temperatures.
- Avoid application in areas that are frozen, at risk of freezing within 24 hours, or in areas open to direct sun and wind.
- Do not touch for at least 24 hours after the application and prevent water contact for 48 hours.

### SHELF LIFE

Expires in 12 months. Store unopened packages in cool and dry environments, between 5°C and 30°C. Keep against freezing.

### HEALTH AND SAFETY

As with all chemical products, contact with food, skin, eyes and mouth should be avoided during usage and storing. In case of contact, rinse with water. If swallowed by accident, consult a doctor. During the application, work wears, protective gloves and goggles should be used according to the work place health regulations. Do not bring food or beverages in application areas. Do not approach with fire. Ventilate the application areas. Keep out of reach of children.



## Technical Data Sheet (TDS)

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The application instructions and technical values given for the products have been obtained in accordance with our tests and experiences in accordance with international standards at 23±2°C temperature and 50±5% relative humidity conditions. These values may vary depending on ambient conditions. High temperatures shorten the times, low temperatures lengthen them. Before starting the application, the user should test whether the product is suitable for the application and purpose. FIXA Yapı Chemicals San. Trade Ltd. Sti. is not responsible. This Technical Data Sheet remains valid until the next revision is published. FIXA reserves the right to change the values specified in this Technical Data Sheet, provided that the new version is published. It is the user's responsibility to check that the document is up-to-date. Please contact our sales department for more information.