

**Repair, Reinforcement and Restoration /
Cement Based Repair and Grout Mortars**

REPAIRGROUT EXPAN T45

High Strength Shrinkage Compensated Grout Mortar

DESCRIPTION

Cement based, single component, **shrinkage compensated, thixotropic, high strength structural** grout mortar. Complies with class **R4**.

APPLICATION AREAS

- Indoor and outdoor,
- Horizontal, vertical and overhead repair applications,
- Repairs that require early high strength,
- Repairing reinforced concrete, prefabricated construction elements and floors,
- Repairing concrete with segregation,
- Grouting joints between old and new concrete,
- Grouting tie-rod holes, core holes and chamfering applications,
- Grouting the gaps that exist around the installation pipes and elements,
- Reinforcing the connections of the shear walls and the beams.

TECHNICAL PROPERTIES

Appearance	Grey colored powder
Powder Density	~ 1.50 kg/L
Water Mixing Ratio	3.9 L water / 25 kg powder
Resting Period	5 – 10 minutes
Pot Life	~ 30 minutes
Application Temperature	Between +5°C and +35°C
Compressive Strength	1 day : $\geq 30 \text{ N/mm}^2$ (EN 12190) 7 days : $\geq 35 \text{ N/mm}^2$ (EN 12190) 28 days : $\geq 45 \text{ N/mm}^2$ (EN 12190)
Application Thickness / Layer	Min. 10 mm, Max. 50 mm
Walk-on Time	24 hours

ADVANTAGES

- Does not shrink. In thixotropic consistency.
- Provides high compressive strength, can be used in structural repairs.
- Resistant to impacts and vibrations.
- Provides high adherence to concrete and reinforcement.
- Resistant to water and frost.
- Does not contain corrosive materials.
- Only mixed with water, easy to apply.
- Does not cause segregation.
- Economical.

CONSUMPTION

Approximately 20 kg/m² (for 10 mm thickness)

PACKAGING

25 kg kraft bags

APPLICATION

PREPARATION OF THE SURFACE

- The application surface must be cured.
- The surface must be free of weakly adhered parts and clear of materials which prevent bonding, such as dust, oil, paint, curing agents, detergents and mold release oils.
- Wet the surface and keep it moist, but remove completely the excess water ponding on the surface.
- Close the active water leaks on the surface with a suitable plug and drain the water leak.
- Place the mortar whose expansion force is desired to be used at maximum level, in a rectangular cavity with vertical sides. The minimum acceptable depth is 6 mm. If it is desired to be used as a coating, the recommended maximum thickness is 50 mm.

PREPARATION OF THE MORTAR

First, add half of the powder in 25 kg bag to 3.9 liters of water and mix with a mixer with low speed (400 – 600 rpm) until there are no lumps. Then add the rest of the powder. Mix at least for 5 minutes. 12.2 liter mortar is obtained.

APPLICATION

- Apply the mortar with a trowel, between 10 – 50 mm on each layer. For a thicker application, apply the second layer to the surface in the same way when the first layer is dry. Large surfaces open to the atmosphere should be cured and protected against rapid evaporation. Deficiencies in curing can reduce the initial expansion needed to compensate for shrinkage.
- Do not expose to vibration.

CAUTION

- Avoid application at temperatures below +5°C and above +35°C.
- Be extremely sensitive in water ratios. Mix it with a low-speed mixer and do not mix manually.
- Do not use as a finishing floor covering material on large surfaces.
- If the ambient temperature is below +8°C, cover the floor and keep the mortar at minimum +8°C.
- 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 add water and powder to the expired mortar.

SHELF LIFE

Expires in 12 months. Store unopened packages in non-humid environments. Stack up to 10 packages on the pallet.

HEALTH AND SAFETY

As with all chemical products, contact with food, skin, eyes and mouth should be avoided during usage and storing. During the application, work wears, protective gloves and goggles should be used according to the work place health regulations. If swallowed by accident, consult a doctor. Rinse with water in case of contact with skin. Keep out of reach of children.

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 Construction Chemicals Ltd. 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.