

Teknobond 450

High Build, Epoxy Resin Based,
3-Components, Thixotropic Repair Mortar

Product Description TEKNOBOND 450 is epoxy resin based thixotropic repair mortar with three components including quartz aggregate.

Uses

- Repairing damaged concrete on vertical and overhead applications.
- Repairing soffits, precast units and all damaged concrete.
- Substrates where chemical resistance or impermeability to water, oil and petrol is required.
- Repairing the reinforced concrete elements.
- Structural and non-structural repairing of high strength concrete elements.
- Repairs to bridge and highway structures.
- In filling the gaps happening because of abrasion.
- In interior and exterior situations.

Features and Benefits

- Adheres to concrete perfectly.
- Gets rapid mechanical strength.
- Can be used in over-head applications.
- Long process time.
- High abrasion resistance.
- Resistant against tensions and vibrations rooting from temperature differences.
- Resistant to freeze-thaw cycle.
- Absorbs impact.
- Good chemical resistance
- Impermeable to water and other liquids.
- Reduces the number of layers on thick applications.

Preparation of Substrate

The concrete surfaces must be clean, dry, sound and free from dust, grease or any loose material. Old concrete surfaces contaminated with oil or grease requires suitable preparation such as steam cleaning in conjunction with a suitable detergent. Steel surfaces should be cleaned from rust by sand blasting and if needed new reinforcement should be installed.

Mixing: Mix the resin and hardener components thoroughly with a mechanical mixer with a 400 - 600 RPM mixer in a clean container, until an even color and consistency are achieved. Then add the C component (filler) slowly, mixing all the time. Do not mix too much because this can affect the workability of the material.

Application Method: TEKNOBOND 450 is to be applied on the prepared surface with a spatula or a trowel. In some cases it may be found most practicable to knead into position with hand. Application thickness has to be at most 80 mm. But if thicker layer is required then proceed by building up in layers and allow initial set (6 hours approximately) between layers before applying subsequent layers. The mortar has to be well tamped to ensure proper consolidation and then troweled to bring up enough resin binder to thoroughly seal the surface.

Watchpoints

- Never thin by any solvent.
- TEKNOBOND 450 has to be mixed with an appropriate mixing drill. Never mix with hand or trowel.
- Avoid application under temperatures below +5°C and over +30°C.
- Avoid application on frozen areas, on areas under risk of freezing in 24 hours or on areas open to direct sunlight or wind.
- TEKNOBOND 450 should be applied in 30 minutes (at 20°C). The workability and hardening times of epoxy based products depend on temperature.
- After the application there should be no contact for 24 hours. Also water contact has to be avoided.
- TEKNOBOND 450 does not contain solvent.
- All skin contact with epoxy resin products should be avoided.
- In case of contact with skin, rinse immediately with water and soap.
- Operatives should wear protective clothing including gloves, masks and glasses.
- Working areas should be well ventilated.
- In the event of fire use foam, dry chemical or carbon dioxide.
- If swallowed by accident, consult a doctor urgently.
- Do not add any additives other than those stated in the Application Instructions.

Technical Data

General Information	
Color	Gray
Compressive Strength	> 62,5 N/mm ² (TS EN 196)
Adhesion to Concrete	> 4.0 N/mm ²
Flexural strength	> 20.0 N/mm ² (7 days)
Density	1.7±0,10 kg/l
Adhesion to Steel	> 3.0 N/mm ²
Pot Life	30 minutes (at 20°C).
Ability to Upload	1 days
Full strength	7 days
Mixing Ratio	1:1:1,2 1 / unit A :1 unit B: 1,2 unit C (by weight)
Storage	12 months. Store in cool, dry and frost free conditions.
Packaging	8 kg set

