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construction chemicals

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Teknorep 300 Ex

Cement Based Thixotropic, Non-shrink Repair Mortar
for Thick Application

CE TS EN 1504 - 3 R4

Public Pos. No: 04.613/3B

Product Description

Cement based, one component structural, fast, non-shrink and thick repair mortar.

Areas of Usage

- It's used in the filling of shift rod spaces (rod holes / Tie-rod holes) and core spaces in
- reinforced concrete structures,
- It's used in construction of all kinds of concrete after the mold is taken to repair the concrete,
- In light and medium weight traffic loads, special coatings in future floors and surface repairs.
- In all kinds of industrial reinforced concrete structures,
- In engineering structures such as metro, highways, dams,
- In repair, repair and reinforced concrete projects,
- In the repair of prefabricated elements.
- It is used for repairing surface defects of 10 - 40 mm thickness in one time.

Features and Benefits

- Easy to be applied.
- Used in structural repairs.
- It is not affected by moisture because it does not contain metal.
- It has high adhesion strength.
- It is resistant to sulphate and chlorine.
- It does not cause corrosion.
- It is resistant to freezing and thawing.
- It is suitable for vertical and overhead applications.
- It does not shrink.
- It is resistant to carbonation.
- It has high pressure resistance.
- It's impermeable.
- Because it does not contain chlorine, it can be used in contact with reinforcement.

Application Instructions

Surface Quality: The surfaces must be clean, smooth, solid, free from any antiadhesive substance such as dust, oil, dirt, rust, mold oil, detergent and waste. Weak parts on the surface should be removed.
Surface Preparation: Cement slurry and weakened parts should be removed, and there should be no materials such as oil dirt and rust on the surface. Absorbent surfaces must be pre-wetted, but there should be no water droplets or drops.
Mixing: 3,5 - 4,5 lt clean, clear water received from normal ambient temperature into a clean container which is free from all kinds of materials which prevent adhesion. TEKNOREP 300 EX in 25 kg bag as powder is poured into a container filled with water. The product is mixed with a low speed mixer until a homogeneous mixture without lumps is obtained. Mixing time should be minimum 5 min. The mortar obtained at the end of the process should be rested for 3 minutes and mixed again until it becomes homogenous for 2 minutes. After the material has entered the reaction, it should not be mixed again with water.

Application Notes / Restrictions

- For outdoor applications, the first 3 hours of sunshine should be protected from rain and frost.
- In cement based products, reaction times are affected by ambient and ground temperatures. Reaction times are shortened in a hot environment, and extend in a cold environment.
- Hot water should be used in cold conditions.
- In hot environments, iced mixture water should be used.
- It should not be used in contact with liquids with pH value lower than 5,5. Q On large surfaces, it should not be used as a final floor concrete floor covering.
- During the application of the product, work clothes suitable for occupational health and safety rules should be worn and appropriate glasses and masks should be used.
- The prepared mortar is applied to the surface with a trowel. If necessary, clover is applied to ensure surface smoothness. Applications with wall thickness over 40 mm should be done in coats.
- Immediately after application, before hardened, the equipment should be cleaned with water. After the product is hardened, it should be cleaned by mechanical methods.
- TEKNOREP 300 EX is applied with a trowel after TEKNO AD is used as primer to fuse old concrete and new concrete.
- In severe wind and severe environmental conditions, TEKNOKÜR 100 can be applied as curing material in order to prevent cracking of TEKNOREP 300 EX.

Technical Data

General Information	
Appearance	Grey
Shelf Life	12 months in unopened package in dry environment
Package	25 kg kraft bag
Application Information	
Application Temperature	(+5°C) - (+35°C)
Mixture Ratio	3.5 - 4.5 lt water / 25 kg powder
Pot Life	Min. 20 dk
Time to Put into Service	1 day
Application Thickness	10 - 40 mm (One coat)
Performance Information	
Flexural Strength (EN 12190)	≥ 10 N/mm²
Concrete Adhesion Strength (EN 1542)	≥ 2,0 N/mm²
Compressive Strength (EN 12190)	≥ 50 N/mm²
Modulus of Elasticity (EN 13412)	≥ 20 Gpa
Limited Shrinkage (EN 12617-4)	≥ 2 N/mm²
Capillary Water Absorption Value (EN 13057)	≤ 0,5 kg/m² $h^{0'5}$
Limited Shrinkage / Expansion (EN 12617-4)	≥ 2 N/mm²
Chloride Content	< %0,05
Hazardous Substances	See the safety data sheet.
Fire Response	A1

Consumption Table

Teknorep 300 Ex	Mixture Density (kg / lt)	1 mm/ 1m² Powder Consumption (kg)	Mixture Water Amount (lt)
25 kg kraft bag	~2,06	1,8	3,5 – 4,5

Technical data are approximate values obtained from the laboratory study of Tekno Construction Chemicals for finished products obtained at +20°C air temperature and 50% relative air humidity and valid for its performance after 27 days.