

Teknogrout Ex

Fast Setting Non-shrink Flowable Grout



CE TS EN 1504 – 3, R4

Public Pos. No: 04.613/3C

Product Description

It is a cement based, one component, non-shrink, self levelling, flowable grouting mortar with high adherence and strength.

Areas of Usage

- It's used in site concrete, railway construction,
- In repairing aircraft and helicopter tracks,
- In raising manhole covers and manholes,
- To fix steel columns and poles,
- Under all kinds of industrial machine bearings,
- In engineering structures such as metro, highways, dams,
- For repair of sections where reinforced concrete curtains are joined to the beam, in strengthening projects,
- To combine prefabricated elements.

Features and Benefits

- It is easy to use,
- It gains fast strength, loading after 1 - 2 hours is possible.
- It does not shrink, it shows high fluidity.
- It is not affected by moisture because it does not contain metal.
- It's impermeable.
- It does not contain solvent, asbestos.
- It is resistant to freezing and thawing.
- It is resistant against various chemicals.
- It sticks well to concrete, doesn't contain chlorine.

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. If there is crack, hollow on the floor to be applied, it should be repaired with appropriate TEKNOREP 200 repair mortars. TEKNOGROUT EX should be applied 3-4 days later.

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 - 4,0 lt clean, clear water received from normal ambient temperature into a clean container which is free from all kinds of materials which prevent adhesion.

TEKNOGROUT 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 app. 1 min. The mortar obtained at the end of the process should not be rested. It should be applied without waiting. After the material has entered the reaction, it should not be mixed again with water.

TEKNOGROUT EX should be poured from one side in order to fill under the gaps surrounded by four sides and covered. So it discharges air and prevents gaps. It can be pushed from one side with a long piece of iron during casting to speed up flow. The thickness of the casting should be 10-60 mm as a layer thickness at a time. It is advisable to carry out a preliminary test if small diameter anchors are to be used.

- For applications thicker than 60 mm, it is possible to add aggregates of 5-12 mm in diameter at the rate of 30% of the material.
- Aggregate addition is done in two ways;
- The aggregate is added into the prepared mortar. When a homogenous mixture is obtained, this process is continued for 3 minutes.
- Aggregate is poured or spread on the floor to be applied. The mixture is then poured onto the prepared TEKNOGROUT EX. The self-leveling mortar also allows the possibility of wrapping around the aggregate to obtain a high-strength concrete.

Application Notes / Restrictions

- For outdoor applications, It should be protected from rain, frost and sunshine approximately for 2 hours.
- 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.
- 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.
- It must be protected after application against adverse weather conditions such as direct sunlight, high air temperature (above +35°C), rain and frost. The product should be cleaned thoroughly with water and detergent before it is fully cured and hardened.
- Immediately after application, before hardened, the equipment should be cleaned with water. After the product is hardened, it should be cleaned by mechanical methods.

Technical Data

General Information	
Appearance	Grey
Shelf Life	12 months in unopened package in dry environment
Package	25 kg kraft bag
Grain Size	D _{max} : 3 mm
Application Information	
Application Temperature	(+5°C) - (+35°C)
Mixture Ratio	3,5 - 4,0 lt water/25 kg powder
Workability Time	5 -10 min.
Mortar Density	2,30 ±0,1 kg/lt
Time to Put into Service	Approximately 2 hours
Application Thickness	At least 10 mm / Maximum 60 mm
Performance Information	
Flexural Strength (28 days)	≥ 9.0 N/mm ²
Pressure Resistance (28 days)	≥ 60,0 N/mm ² (TS EN 196-1)
Adhesion Strength (28 days) (TS EN 1542)	≥ 2.0 N/mm ²
Capillary Water Absorption (TS EN 13057) 28 days	≤ 0,5 kg/(m ² .h ^{0.5})

Consumption Table

Teknogrout Ex	Mixture Density (gr / lt)	10 mm/ 1m ² Powder Consumption (kg)	Mixture Water Amount (lt)
25 kg kraft bag	2,30 ± 0,1	~21	3,5-4,0

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 28 days.

