

## Chelfix Grout50

Cementitious, Very Fast Setting,  
non-shrink Flowable Grout



**Product Description** Chelfix Grout50 is a cement based , pre-mixed chloride free self compacting cementitious very fast setting grout. It is high strength flowable mortar, which is non shrink mortar despite of its very high flowability.

- Areas of Application**
- It used in elevating manhole covers and manholes.
  - To fix poles.
  - In the installation of curb and paving stones.
  - Filling of shutter tie rod openings.
  - Between anchors of steel constructions.
  - Repair of concrete floors exposed to vehicle and pedestrian traffic.
  - Filling of hollows and craters in concrete.

- Advantages**
- Mixed with only water and can be applied easily.
  - Extremely dense and low permeability.
  - It gains fast strength. It can be opened to traffic after 1 hour.
  - High fluid consistency can be poured or pumped into variable gap widths down to 10 mm.
  - It is resistant against various chemicals, oils and acids.
  - Free of bleeding.
  - Resistant to water and weather conditions.
  - The area of utilization is wide because it does not shrink.
  - It does not decompose and cause water formation.
  - Strength and abrasion resistance are high.
  - Since it has very high adherence, it works monolithic with old concrete.
  - It is resistant to freezing and thawing.

**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 Chelfix R200 repair mortars. Chelfix Grout50 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 liter clean, clear water received from normal ambient temperature into a clean container which is free from all kinds of materials which prevent adhesion. Chelfix Grout50 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 approximately 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.

## Application Instructions

Chelfix Grout50 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 Chelfix Grout50. 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

Property	
Solid content:	100%
Color:	Grey
Grain Size	Dmax: 3 mm
Mixture Ratio	3.0 – 4.0 liter water/25 kg powder
Workability Time	Maximum 2.5 min.
Mortar Density	2.3 ±0.1 kg/lit
Setting starting	Approximately 5 min.
Application Thickness	minimum 10 mm / Maximum 40 mm
Compressive strength: BS1881, part 116 , TS EN 196 & ASTM C109/109M-02	1 hour ≥ 16MPa @ 28days 24 hours ≥ 35 MPa @ 28days 28 days ≥ 65 MPa @ 28days
Application temperature	(+5°C) - (+35°C)
Consumption ( 25 kg craft bag):	2.3±0.1
Mixture Density:	~21
Powder consumption per 1 liter mortar (kg):	3.0-4.0
Mixture Water Amount (lit):	

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**Curing**

Since Chelfix Grout50 is a cementitious based material, it should be treated in a manner similar to concrete. Curing can be conducted by either using concrete curing compound such as Chelfix curing compound or by using wet hessian and polyethylene.

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**Packaging**

Chelfix Grout 50 is available in 25 Kg bags.

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**Storage**

Chelfix Grout50 has a shelf life of 12 months from date of manufacture if stored at temperatures between +2 0C to 50 0C .  
If these conditions are exceeded, Chelfix technical department should be contacted for advice.

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**Fire**

Chelfix Grout 50 is nonflammable.