

## Chelfix Grout 150

Cementitious high strength non-shrink precision grout

### Product Description

Chelfix Grout 150 is a cement based , pre-mixed chloride free self compacting cementitious grout. It is high strength flowable mortar, which is non shrink mortar despite of its very high flowability.

### Areas of Application

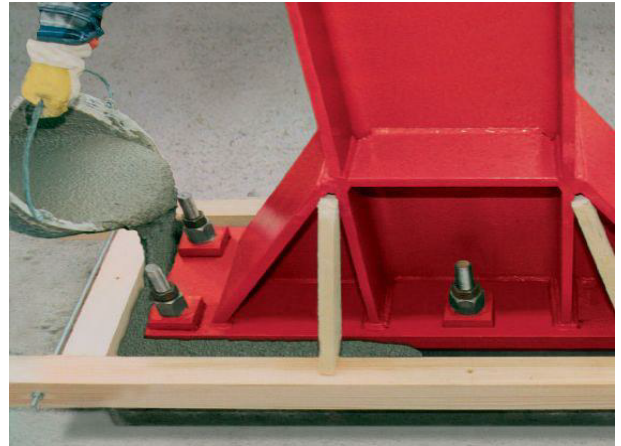
- Machine ry foundations and machine beds.
- Stanchion bases, struts, railing, and guardrail assemblies.
- Joints of prefabricated concrete elements.
- Filling of shutter tie rod openings.
- Between anchors of steel constructions.
- Mounting of tanks and silo columns.
- Pile top re-profiling.
- Exterior concrete, partition and column heads, determination of track beds.
- Fixing of the industrial machines on the foundations.
- Filling of hollows and craters in concrete.

### Advantages

- Mixed with only water and can be applied easily.
- Extremely dense and low permeability.
- High compressive strength.
- High fluid consistency can be poured or pumped into variable gap widths down to 10 mm.
- Free of bleeding.
- Resistant to water and weather conditions.
- Perfect bonding to the concrete and steel.
- Non-shrink.

### Method of Use Surface Preparation

Surface Quality: Concrete and metal surfaces must be clean, smooth, solid, free from cement slurry and weakened parts, any anti adhesive substance such as dust, oil, ice, dirt, rust, mold oil, detergent and waste. Pull off strength of concrete must be above 1 MPa. AII molds must have



## Chelfix Grout 150

### Cementitious high strength non-shrink precision grout

sufficient strength, mold oil must be applied and must be insulated to prevent leaks. Insulation can be made by using under, around and at the junction points of the mold. Whether the mold is leakproof can be controlled by pre-wetting water. During grouting, a suitable feed hopper / funnel should be made on one side of the mold in order to maintain a constant grouting height of 150 - 200 mm. Surface Preparation: High pressure water should be prepared by cleaning with suitable mechanical surface preparation techniques such as jetting, roughening, sandblasting. Absorbent surfaces must be pre-wetted, but there should be no water accumulations. Mixing: 25 kg of powder material is poured onto 3.0 - 4.0 it of water. These rates given can vary depending on the weather temperature. The mortar is mixed with a 400 - 600 rpm mixer until a homogeneous and a consistency without lumps is obtained for about 3 min. After 2 min. of rest, the material is ready to be used again for 30 seconds. The prepared mixture should be placed in 20-25 min. depending on the air temperature and the amount of water. Chelfix Grout 150 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 10-75 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 75 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 3-5 minutes.
- Aggregate is poured or spread on the floor to be applied. The mixture is then poured onto the prepared Chelfix Grout 150. The self-leveling mortar also allows the possibility of wrapping around the aggregate to obtain a high-strength concrete

### Technical Data

Property:	
Solid content:	100%
Color:	Grey
Grain Size	Dmax: 3 mm
Mixture Ratio	3,0 - 4,0 it water/25 kg powder
Workability Time	Minimum 20 min.
Mortar Density	2,3 ±0, 1 kg/it
Time to put into Service	~24 hours
Application Thickness	Minimum 10 mm / Maximum 75 mm
Compressive strength: BS1881, part 116 , TS EN 196 & ASTM C109/109M-02	≥ 25 MPa @ 1day ≥ 50 MPa @ 7days ≥ 60 MPa @ 28days
Flexural strength:	≥ 2.0 MPa @ 1 day

## Chelfix Grout 150

Cementitious high strength non-shrink precision grout

BS6319,Part3,1998	$\geq 7.5 \text{ MPa @ 7 days}$ $\geq 9.0 \text{ MPa @ 28 days}$
Fresh wet density	2100 Kg/ m3
Application temperature	(+5°C) - (+45°C)
Service temperature	-30 0C to 200 0C
Adhesion Strength (28 days) (TS EN 1542)	$\geq 2.0 \text{ MPa}$
Capillary Water Absorption (28 days) (TS EN 13057)	Less than 0,5 kg/(m2 .h0-5)
Consumption ( 25 kg craft bag):	2,3±0,1
Mixture Density:	~2,00
Powder consumption per 1 liter mortar (kg):	3,0-4,0
Mixture Water Amount (lt):	

### Placing and Finishing Under Base plate:

Enough material should be available to achieve continuous fill and to complete the work. Pouring of the mixed grout should be started from one side only to avoid air entrapment. To obtain maximum flow distance, a side shutter feed between 100mm to 250mm high should be erected and used to build the required head.

### Formwork preparation:

The form material should be waterproof and resistant to hydrostatic forces of the grout. Formwork installation should be done against the possible leakage of the cement paste. An opening should be designed in the formwork with a width of 5 cm at minimum for pouring the grout. For providing a constant pressure for easy compacting of the grout the forms should be as high as possible in the pouring side. In grouting of huge base plates, special pipe and pump systems can be used or grout can be prepared with 5% extra water. For preventing the pressure releases, the forms should be placed without any tolerances and gaps between the concrete and form material.

### Curing

Since Chelfix Grout 150 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.

### Yield

Approximately 13-13.5 liter/25kg bag depending on consistency.

### Notes

At low temperature (Below 8 °C), warm water is recommended to achieve the early strength. And the formwork is recommended to be kept longer time.

At high temperatures (40 °C and above), cold water (less than 20 °C) must be used for mixing.

# Chelfix Grout 150

Cementitious high strength non-shrink precision grout

---

## Standards

Complies with EN 1504-6 and TS EN 1504-3/R4 ASTM C1107 Type B and Type C.

## Cleaning

After the application all tools should be cleaned with water. curing compound can be cleaned with only mechanical abrasion after hardening.

## Packaging

Chelfix Grout 150 is available in 25 Kg bags.

## Storage

Chelfix Grout 150 has a shelf life of 12 months from date of manufacture if stored at temperatures between +2 °C to 50 °C.

If these conditions are exceeded, Ridge technical department should be contacted for advice.

## Cautions

### Health and safety

Since it is powder containing Portland cement and sand, it may cause irritation to skin or eyes. In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice.

## Fire

Chelfix Grout 150 is nonflammable.