

SOFT ROCK MINING / HARD ROCK MINING

FB400 C

THIXOTROPIC GROUT WITH ADDED CORROSION PROTECTION

DESCRIPTION

FB400C is supplied as a ready to use, free flowing, blended cementitious powder. It requires only the addition of water in a high shear mixer, to produce a highly thixotropic grout.

APPLICATION AND USES

- Top down cable bolt grouting
- Grouting of long tendons

ADVANTAGES

- High early strength, reduces the likelihood of bed separation or slippage of strata
- Thixotropic, can be used in badly broken ground
- Non-shrink, unique expansion system compensates for shrinkage
- High ultimate strength and low porosity ensures long term durability
- Contains a migrating corrosion inhibitor to enhance corrosion protection
- Chloride free
- Excellent pumpability

TECHNICAL DATA

Typical properties using potable water:

Pumping life @ 20°C	120 mins	
Set time @ 20°C	420 min	
Liters water p/bag	8.0	7.0
Age (days)	Compressive strength (MPa)	
1 day	28	36
7 days	45	57
28 days	63	70
Max. pumping distance (m)	20	



APPLICATION METHOD

Preparation

- Drill hole to desired depth, ensuring it is free and clear of loose matter for entire length.
- Position tendon in the hole. Ensure grout tube is at the top of the hole.
- Attach plate and tighten nut, then connect pumping hose.

Mixing

Water requirements are as follows:

	Litres/20kg bag
Stage 1	6.0L
Stage 2	1.0L
Total	7.0L
Maximum	8.0L

- Fill mixer with water as per Stage 1
- Start mixer, then slowly add FB400C powder.
- If powder addition is too fast, large lumps will form and final mix will be slow reaching uniformity.
- Add remainder of water as per Stage 2 and mix until lump free.

- Use a high shear mechanical mixer of approved design.

Placing

- Continuous flow of grout is essential therefore enough grout for the job must be prepared prior to placement. Do not try to mix and place grout at the same time.
- Connect the pump to the grout filling tube.
- Pump the grout into the bolt hole until the grout emerges from the bottom of the hole.
- The recommended maximum pumping distance is 20 m. Pumping distances will vary due to pump, lines, air, temperature, etc. Do not dilute FB400C to pump further distances, as this will affect material properties.

Cleaning

FB400C should be removed from tools and equipment immediately after use with clean water.

Limitations

Do not use at temperatures below 5°C or in areas where ground water contains higher Chloride levels e.g. EC above 16667 micro siemens/cm or chloride levels above 11670 mg/L. If further information is required consult Minova Australia.

SAFETY INSTRUCTIONS AND LIMITATIONS

At the recommended consistency, the approximate grout yield is as follows:

Yield / 20kg bag
15L

PACKAGING AND TRANSPORTATION

FB400C is supplied in 20 kg bags. All bags are packed on stretch wrapped wooden pallets, 60 bags per pallet.

STORAGE AND SHELF LIFE

FB400C has a shelf life of 12 months.

STORAGE CONDITIONS

FB400C should be stored in original packing under dry warehouse conditions. High temperature and high humidity may reduce the shelf life.

HEALTH AND SAFETY

For further information see the relevant material safety data sheet on www.minovaglobal.com.au

TECHNICAL SUPPORT

We provide technical advisory service by a team of specialists in the field. The service includes on site assistance and advice on evaluation trials and laboratory work.

MANUFACTURER

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