

SOFT ROCK MINING / HARD ROCK MINING

FB400

HIGH STRENGTH, THIXOTROPIC ANCHORING GROUT

DESCRIPTION

FB400 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
- Excellent pumpability
- Chloride free

TECHNICAL DATA

Typical properties using potable water:

Pumping life @ 20°C (minutes)			120
Set time @ 20°C (minutes)			420
Liters water per bag	8.0	7.0	6.0
Age (days)	Compressive strength (MPa)		
1 day	26	29	40
7 days	46	51	74
28 days	58	67	85
Wet Density (kg/m³)	1867	1950	2030
Max. pumping distance (m)			10



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	Litres/15kg bag
Stage 1	6.0L	4.5L
Stage 2	1.0L	0.75L
Total	7.0L	5.25L
Maximum	8.0L	6.0L

- Fill mixer with water as per Stage 1
- Start mixer, then slowly add FB400 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 prepare enough grout for the job 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 10 m

Cleaning

FB400 should be removed from tools and equipment immediately after use with clean water.

SAFETY INSTRUCTIONS AND LIMITATIONS

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

Yield / 20kg bag	Yield / 15kg bag
15L	11.25L

PACKAGING AND TRANSPORTATION

FB400 is supplied in 20kg & 15kg bags. All bags are packed on stretch wrapped wooden pallets, 60 bags per pallet.

STORAGE AND SHELF LIFE

FB400 has a shelf life of 12 months.

STORAGE CONDITIONS

FB400 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/apac

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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