

## PreFine 60 / 80

### Microfine Cement for Injection of Rock and Soil

#### DESCRIPTION

PreFine is a supplementary cementitious material based microfine cement developed for special applications, such as injection and grouting. Because of its fineness, **PreFine 60 / 80** has an excellent penetration into micro cracks and provides efficient tightness combined with good durability. The unique combination of the special manufacturing process and selected materials enable **PreFine** to meet the requirements of the market.

#### APPLICATIONS

PreFine is recommended for:

- **Rock Injection:** tunnels, caverns etc., as pre- or post-stabilization injection. Fixation and water scaling in fractured zone during tunnel construction. Water sealing of tunnel walls.
- **Soil Injection:** stabilization, water tightness, preventing settlement, etc.
- **Underground oil storage facilities:** Ensuring leak tightness of retention dikes around oil tank.
- **Curtain Grouting for dams and embankments.**
- **Water sealing of joints on water and sewage mains.**

#### FEATURES

- Superior sulphate and chloride resistance.
- Standard cement injection technology and equipment can be used.
- Better performance in terms of tightness and penetration into micro cracks in rock and soil.
- Nontoxic; safer environment.
- Good long term durability.
- Controlled setting.
- Compatible with most admixture types.
- Controlled fineness.

#### SELECTION OF PRODUCT

Due to its fineness, PreFine-80 has better penetration in micro cracks. PreFine-80 has lower viscosity, higher workability and extended pot life compared to PreFine-60.

#### TECHNICAL DATA

Typical Particle Size Distribution and Fineness		
	PreFine-60	PreFine-80
D <sub>50</sub> (µm)	N.A.	≤ 5
D <sub>75</sub> (µm)	N.A.	≤ 7
D <sub>90</sub> (µm)	≤ 12	≤ 10
D <sub>95</sub> (µm)	≤ 16	≤ 12
D <sub>98</sub> (µm)	≤ 20	≤ 15
Fineness- Blaine (m <sup>2</sup> /kg)	700-900	900-1050

In-house test results

Physical Properties and Strength		
Water to cement ratio	1.0	1.3
Marsh Funnel Flow, seconds	≤ 37	≤ 35
Bleeding rate for 2 hours, %	≤ 2.0	≤ 2.0
Mud Density, kg/ l	1.40 – 1.60	1.30 - 1.50
Plastic Viscosity (fresh), mPa.s	7.0 – 12.0	4.0 – 9.0
Apparent Viscosity (fresh), mPa.s	14.0 – 22.0	12.0 – 18.0
Workability (between), mm	≥ 900	≥ 900
Yield Strength (fresh), Pa	5.0 – 12.0	4.0 – 10.0
Compressive Strength at 28 day, N/mm <sup>2</sup> (BS EN 196, cylinder)	≥ 10.0	≥ 8.0

#### Penetrability by filter pump, ml (BS EN 14497-2004)

125 microns	280 - 300	~ 295
100 microns	250 - 300	~ 270
75 microns	200 - 300	~ 250
45 microns	10 - 60	~ 115
32 microns	0 - 10	~ 15

Technical data stated herein is based on external test results from SAC-SINGLAS accredited laboratory.

Note: Technical data presented are typical values for reference only. Minor variations to be expected.

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#### Product Data Sheet Rev.10 (OCT 22)



Identification Number: 022-003-2451  
Eco Friendly Building Material

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#### POT LIFE

The pot life is normally longer than 60 minutes. The grout should be injected within 100 minutes after mixing to ensure that it keeps penetrating into the fissures.

#### CONDITIONS OF USE

PreFine based grout should always be mixed in a high efficiency mixer (preferably a colloidal mixer) for maximum 4 minutes. Keep under slow constant agitation prior to injection.

Open time may be increased with proprietary admixtures (use in accordance with admixture manufacturer's instructions).

PreFine is manufactured from natural materials and slight differences in color maybe observed.

#### PACKAGING

PreFine is supplied in 25 kg bags.

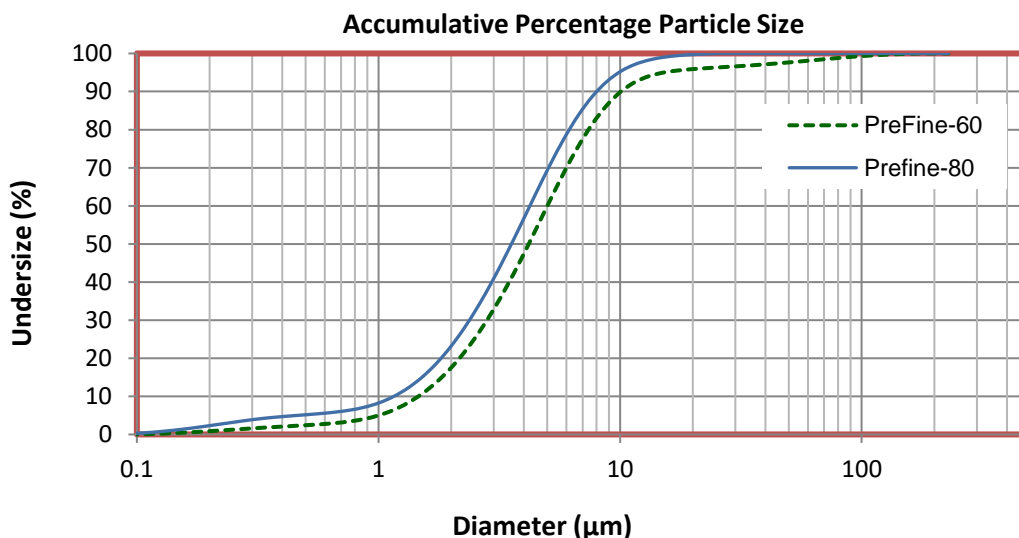
#### STORAGE

PreFine has a shelf life of six months when stored in original sealed bags, kept dry and out of direct sunlight.

#### HEALTH AND SAFETY

PreFine is irritant to skin and eye. If such contact occurs, the affected area should be washed with plenty of clean water. In case of eye contact, seek immediate medical advice. For detailed information and safety instructions, please refer to *Safety Data Sheet*.

### Typical Particle Size Distribution for PreFine 60/80



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