

Micro-fine Cement

1200 m²/Kg



Product description

The Ultrafine and microfine cement DMFC -1200 is a fine, mineral based binder for injections. It can be used as grouting materials after adding additives. Its fineness (largest grain size passing d95 is <math>< 10.5\mu\text{m}</math> and Blaine value > 1200m²/kg) differentiates it from common cements. The DMFC -1200 suspensions, due to its small particle size, penetrates extremely well into cracks, clefts and voids.

Fields of application

DMFC -1200 is used to fill voids and to solidify the matrix of concrete, mortar, loose-rock soil etc..., in particular:

- Solidification of loose-rock soil
- Jetting process
- Secondary injection when large voids must be filled
- Solidification of fragmented rock zones
- Concrete restoration
- Crack injection
- Rehabilitation of old buildings with poor quality concrete
- Injection of rubble/stone masonry walls

Features and benefits

- High early and final strength.
- Better penetration in tight joints, fissures and pore spaces.
- Fast setting.

- Better working environment and no hazardous components.
- Easy to handle, store and use.
- Economical solution.

Cracks with a width higher than 0.20mm and loose-rock soil with $d_{15}=0.20\text{mm}$ can be filled.

Packaging

DMFC -1200 is supplied in 25 kg plastic bags.

Storage

DMFC -1200 has a shelf life of 6 months when stored in original closed bags in ventilated dry areas.

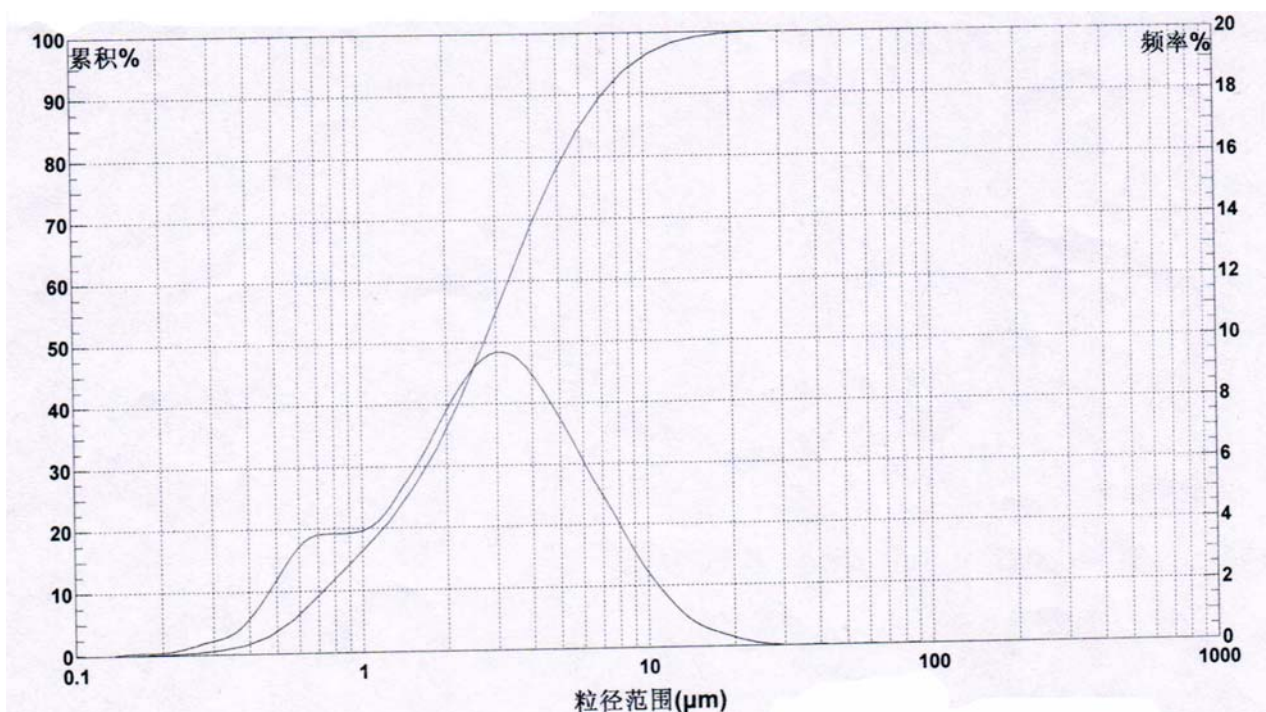
DMFC-1200 is a pure cementitious binder. Contact with eyes, skin and mucous membrane may produce alkaline reaction. Prevent formation of dust. Wear goggles and rubber gloves.



Technical data

Items		Index
Density		3.0kg/l
Specific surface area		> 1200m ² /kg
Strengths(W/Cratio =0.7 and addition of 2‰GC1) Mpa	3d	25
	7d	45
	28d	60
Setting times(Measured by vicat needle)	Initial time	60-120min
	Final time	120-150min
Specific grain size passing (μm)	D50	<3.21
	D90	<7.55
	D95	<10.51

Report of particlesize analysis



Mixing

1. Water

2. DMFC -1200

3. GC1

Mix at least for 5 minutes with colloidal mixer at 1500rpm.

· Transfer to agitator.

It is very important to use an efficient mixer.

Colloidal mixers are the best, but high-speed paddle mixers are acceptable.

Minimum rpm for colloidal mixers: 1500 rpm.

Minimum rpm for paddle mixers: 400 rpm.

NB: Do not over mix. Mixing longer than recommended may cause the grout temperature to increase and set in the pump and hoses.

Injection

The prepared material may be injected with any commonly available equipment suitable for cement injections. Injection pressure: 6-12bar.

Pot life: max.1hrs. At 20°C ambient temperature. In areas to be injected vertically, start from bottom upwards. Substrates to be injected which are dry should be pre-wetted under light pressure.

Standard mixes

Injection for the grouting of cracks and restoration of concrete:

DMFC -1200, W/C ratio=0.6-0.75

Add 2‰.

Injection in loose rock:

DMFC -1200, W/C ratio=0.75-1.5

Add 2‰

Ecology

Do not let DMFC -1200 get into ground water uncontrolled, but dispose of according to local regulations.

Safety precautions

Any physical contact (e.g. skin or eyes) made with micro-fine cement should be avoided, as it may cause irritation or burns. 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 further information please refer to the Material Safety Data Sheet. The information given here is true, represents our best knowledge and is based not only on laboratory work but also on field experience. However, because of numerous factors affecting results, we offer this information without guarantee and no patent liability is assumed. For additional information or questions, please contact your local representative.