

Micro-fine Cement



DMFC-700

Product description

The Ultrafine and microfine cement DMFC -700 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 $<18\mu\text{m}$ and Blaine value $>700\text{m}^2/\text{kg}$) differentiates it from common cements. The DMFC -700 suspensions, due to its small particle size, penetrates extremely well into cracks, clefts and voids.

Fields of application

DMFC -700 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 -700 is supplied in 25 kg plastic bags.

Storage

DMFC -700 has a shelf life of 6 months when stored in original closed bags in ventilated dry areas.



Technical data

Items		Index
Density		3.1kg/l
Specific surface area		>700m ² /kg
Strengths(W/Cratio =0.7 and addition of 1%GC1) Mpa	2d	20
	7d	45
	28d	60
Grain Curve (μ m)	<2	21.74%
	<4	38.10%
	<8	68.90%
	<10	75.98%
	<16	93.26%
Specific grain size passing (μ m)	D50	<5.32
	D90	<12.26
	D95	<18.49

Application

Mixing

1. Water
2. DMFC -700
3. GC1

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

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 -700, W/C ratio=0.6-0.75

Add 1%GC1.

Injection in loose rock:

DMFC -700, W/C ratio=0.75-1.5

Add 1%GC1.

Safety Instructions

Safety precautions

DMFC-700 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.

Ecology

Do not let DMFC -700 get into ground water uncontrolled, but dispose of according to local regulations.