KREVO Inject MicroCem

High performance ultra-fine injection cement | Concrete and geotechnical grouting

PRODUCT DESCRIPTION

KREVO Inject MicroCem is an ultra-fine blast furnace slag cement system for penetrating fine cracks and voids in concrete, rock and soil. It is intended for specialist injection grouting, ground improvement and upgrading conventional cement grouts and mortars. Two fineness grades, B6 and B10, allow selection to suit the project.

KEY FEATURES

- Very fine particle size and high penetrability in suitable cracks and porous media.
- Low permeability and good long-term durability after appropriate curing.
- High resistance to sulfate- and chloride-bearing environments.
- Mineral-based, non-toxic injection-grouting technology.
- Choice of B6 and B10 grades to match penetration and grout-mix requirements.

TYPICAL USES

Concrete crack injection • Soil and rock stabilization • Foundation support • Sealing of sheet piles • Groundwater cut-off and underground stream sealing • Performance enhancement of cement-based grouts and mortars.

PRODUCT INFORMATION

PARAMETER	SPECIFICATION
Generic type	Ultra-fine blast furnace slag injection cement
Available grades	B6 (maximum 6 µm) and B10 (maximum 10 µm)
Form	Dry ultra-fine cementitious powder
Principal applications	Concrete crack injection; soil, rock and foundation grouting
Binder performance	High strength after curing; values vary by grade
Packaging	25 kg bags
Storage	Dry, shaded conditions, below +25°C
Shelf life	6 months in unopened, properly stored bags

TYPICAL LABORATORY PERFORMANCE | B6 AND B10

DRY BINDER PROPERTY	GRADE B6 | GRADE B10
Maximum grain size	B6: 6 µm | B10: 10 µm
Blaine specific surface	B6: ~1,900 m^2/kg | B10: ~1,600 m^2/kg
Median particle size, d50	B6: ≤2.5 µm | B10: ≤3.5 µm
Particle size, d95	B6: ≤6 µm | B10: ≤9.5 µm
Compressive strength, 1 day	B6: ≥25 MPa | B10: ≥10 MPa
Compressive strength, 2 days	B6: ≥45 MPa | B10: ≥35 MPa
Compressive strength, 28 days	B6: ≥70 MPa | B10: ≥70 MPa
Reference test basis	Typical dry binder laboratory data
Site effects	Actual results vary with mix and conditions

Application & System Data

KREVO Inject MicroCem | Typical grout mixes, dispersion, grout yield and injection performance

APPLICATION PARAMETERS

MIX PARAMETER	GRADE B6	MIX PARAMETER	GRADE B10
Water / cement ratio	1 : 1	Water / cement ratio	2 : 1
Water per 25 kg bag	25 litres	Water per 25 kg bag	50 litres
UF dispersant	600 mL	UF dispersant	600 mL
Estimated grout yield	34 litres	Estimated grout yield	59 litres
Typical bleed	2%	Typical bleed	5%

Grade B6 is the finer grade and is typically mixed at a water-to-cement ratio of 1:1; grade B10 is typically mixed at 2:1. These ratios are indicative grout formulations, not universal injection settings. Injection pressure, crack size and acceptance criteria must be determined for each project.

RECOMMENDED INJECTION WORKFLOW

STAGE	METHOD / CONTROL
1 | Assessment	Assess penetration requirement, leakage, crack / ground condition.
2 | Batching	Add water, then dispersant, then ultra-fine cement powder.
3 | Mixing	Mix ≥3 minutes with colloidal / high-shear equipment.
4 | Injection	Agitate continuously; inject within 60 minutes.
5 | Verification	Log grout uptake, pressure, stability and completion checks.

ASSESSMENT & SUBSTRATE PREPARATION

Survey crack, void, rock or soil conditions and determine the required penetration, water-control measures and acceptable pressure. Identify movement and leakage conditions. Clean concrete crack faces and ensure suitable injection access. Agree grout mix and verification methods before production work.

INJECTION PORTS & EQUIPMENT

Select packers and cement-compatible pumping equipment based on access and ground or crack conditions. Use colloidal or high-shear mixers with a holding agitator; ordinary drum mixers are not suitable. Install ports and face seals as needed and check pump connections before grout is introduced.

TYPICAL GROUT TEST	GRADE B6 | GRADE B10
Marsh flow 0 / 30 / 60 min	B6: 32 / 32 / 33 s/dm^3; B10: 31 / 31 / 32 s/dm^3
Grout strength at 1 / 7 days	B6: >3 / >10 MPa; B10: >0.5 / >5 MPa
Grout strength at 28 days	B6: >15 MPa; B10: >7.5 MPa

Trial mixes should check flow stability, bleeding, strength, injectability and pressure limits. For one 25 kg bag, the indicative formulations are: B6 - 25 L water and 600 mL dispersant; B10 - 50 L water and 600 mL dispersant. Adapt dosage only on the basis of approved site trials.

WORKING TIME & MIX STABILITY

Add clean water first, followed by ultra-fine cement dispersant, then the cement powder. Mix for at least 3 minutes and keep the slurry agitated throughout injection. Use the grout within 60 minutes after mixing; keep grout temperature at or below 35°C.

Installation & Product Support

KREVO Inject MicroCem | Mixing sequence, specialist injection procedures, limitations and contacts

MIXING PROCEDURE

- Select B6 or B10 and check the condition and identification of each 25 kg bag.
- Add the measured clean water to a colloidal or high-shear mixer; add the required dispersant.
- Introduce the ultra-fine cement while mixing and continue for at least 3 minutes.
- Maintain gentle agitation during grouting, use within 60 minutes and do not add uncontrolled water.

INJECTION & QUALITY CONTROLS

- Install injection ports and seals as needed; verify the design injection pressure and flow path.
- Inject from the agreed starting point, keeping grout homogeneous throughout application.
- Monitor injection pressure, volume, return flow, leakage and any substrate movement.
- Document the actual mix quantities, grouting volume, field flow measurements and completion checks.

LIMITATIONS & SERVICE NOTES

- Specialist cement injection needs an approved project-specific method statement and trained crews.
- Confirm suitable crack aperture and penetration for the selected particle-size grade.
- Never use a conventional drum mixer; use colloidal or high-shear mixing equipment.
- Do not let the grout temperature exceed 35°C; use prepared grout within 60 minutes.
- Avoid skin contact and prevent discharge of unmixed grout or wash water into drainage.

HEALTH, SAFETY & ENVIRONMENT

Use only with trained grouting personnel. Prevent inhalation of cement dust and avoid eye or skin contact; wear suitable gloves, goggles and dust protection. Obtain and follow the current product Safety Data Sheet, and control slurry wastes and equipment wash water.

QUALITY & PRODUCT INFORMATION

Particle-size distribution, binder strength, grout-mix strength and flow are separate test criteria. Laboratory figures may vary in the field with water content, dispersant dosage, temperature and injection conditions. Confirm KREVO-specific results and suitability for the intended project before approval.

KREVO | GLOBAL CONTACTS

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