KREVO Mix PCE

Polycarboxylate-based high-range water reducer | Slump retention | Flowing & high-performance concrete

PRODUCT DESCRIPTION

KREVO Mix PCE is a liquid, modified polycarboxylate-based high-range water-reducing and superplasticizing admixture for concrete and mortar. Its dispersing action improves flow and workability while reducing the demand for mixing water. The admixture supports extended slump retention, pumpability and the production of high-strength, dense concrete when incorporated in a suitably designed mix.

ADVANTAGES

- Produces high flow and improved workability without unnecessary added water.
- Supports extended slump retention for transport and hot-weather placing.
- Promotes dense concrete with lower permeability through water reduction.
- Helps achieve easier placing and compaction in congested reinforcement.
- Suitable for pumped, high-performance and self-compacting mix designs.

TYPICAL USES

Ready-mix concrete • Piling and continuous-flight-auger (CFA) concrete • Pumped and flowing concrete • Hot or windy weather placing • Concrete with GGBS, fly ash or microsilica • Self-compacting concrete (SCC) • Dense reinforced elements, foundations, beams, walls and columns

PRODUCT INFORMATION

PARAMETER	SPECIFICATION
Generic type	High-range water-reducing PCE superplasticizer and slump-retaining admixture
Chemical base	Aqueous solution of modified polycarboxylates
Appearance / colour	Light to dark brown liquid
Specific gravity / pH	1.110 ± 0.03 / pH ≥ 4
Total chloride ion	Nil (EN 934-2 test reference)
Packaging	5 L, 20 L, 200 L, 1,000 L IBC; bulk supply option
Shelf life	12 months in unopened, properly stored original packaging
Storage conditions	Dry, sealed, +5 °C to +35 °C; protect from sunlight

TECHNICAL & APPLICATION PROPERTIES

PARAMETER / TEST	TYPICAL VALUE / GUIDANCE
Dosage: plastic concrete	0.2–0.4% by weight of binder; verify with mix trials
Dosage: flowing / SCC	0.3–1.5% by weight of binder; verify with mix trials
Water reduction	High-range reduction; actual amount depends on mix design
Slump retention	Longer workability window; confirm in site temperature trials
Chloride ion content	Nil, as specified for the technical basis (EN 934-2)
Dispensing	Add to gauging water or with it into concrete mixer
Wet mixing	At least 2 minutes per m^3 after admixture addition
Standards reference	ASTM C494 Type G — KREVO compliance to be verified

Application & Mixing Guidance

KREVO Mix PCE | Dosage selection, batching, compatibility and workability control

POLYCARBOXYLATE DISPERSION & WATER REDUCTION

CONTROL ITEM	TYPICAL TARGET	CHECK METHOD	ACTION
Plastic concrete	0.2–0.4% binder	Trial batch	Set dosage
Flowing / SCC	0.3–1.5% binder	Flow / slump	Confirm trials
Slump retention	As specified	Time-flow tests	Adjust dose
Wet mixing	≥2 min / m^3	Batch record	Check uniformity
Setting / stability	Within limits	Trial results	Avoid excess water

The modified polycarboxylate admixture disperses cementitious particles by adsorption and steric separation, allowing higher flow at a given water content or reduced water at a target slump. Establish the correct water/binder ratio and dosage in trial mixes. Slump retention, setting, segregation resistance and early strength must be assessed together.

DOSAGE & MIX DESIGN CONTROLS

STAGE	PROCEDURE / GUIDANCE
1 | Mix design	Set binder mass, target workability, strength and water/binder ratio.
2 | Dosage trials	Use 0.2–0.4% for plastic or 0.3–1.5% for flowing / SCC concrete.
3 | Dispensing	Introduce in or with gauging water; do not add to dry cement.
4 | Mixing / QC	Wet-mix ≥2 min per m^3; verify flow, slump retention and stability.
5 | Placement	Pump or place as designed; prevent water overaddition and cure promptly.

CEMENT & ADMIXTURE COMPATIBILITY

Use with appropriate Portland cement and blended-binder mixes containing materials such as GGBS, fly ash or silica fume, subject to trials. When combining with fibres, retarders, accelerators, air-entraining agents, waterproofing products or other admixtures, add each product separately and check compatibility, setting behaviour and concrete performance. Do not combine with naphthalene-based admixtures.

DOSAGE, DISPENSING & MIXING

Typical addition rates are 0.2–0.4% by binder mass for plastic concrete and 0.3–1.5% by binder mass for flowing or self-compacting concrete. These are starting ranges only: the approved mix design and trial results must establish the final dosage. Avoid unnecessary increases in water while adjusting flow.

INSTALLATION CONTROL	REQUIREMENT / GUIDANCE
Dosage / approval	0.2–0.4% (plastic) or 0.3–1.5% (flowing/SCC), based on binder.
Liquid properties	Modified polycarboxylate, brown; SG 1.110 ±0.03 and pH ≥4.
Water reduction	High-range; quantify slump retention and reduction in project trials.
Dispensing / mixing	Add with water, not dry cement; wet-mix ≥2 min per m^3.
Storage / shelf life	Original sealed packs at +5 °C to +35 °C; 12 months.

Add KREVO Mix PCE to the gauging water or introduce it together with the water into the concrete mixer. Provide sufficient wet mixing after addition; guidance is at least 2 minutes per cubic metre, subject to the mixing plant and batch size. Never dispense the liquid directly onto dry cement. Check uniform dispersion before acceptance.

HOT-WEATHER CONCRETING & CURING

In high ambient temperatures or extended transport, monitor concrete temperature, slump retention, air content and setting time. Control batching water and do not retemper with uncontrolled water. Select an approved placing, compaction and curing method; apply curing protection promptly to minimize plastic shrinkage and moisture loss.

Installation & Product Support

KREVO Mix PCE | Dosing procedure, production checks, limitations and safety

BATCHING & MIXING PROCEDURE

- Establish binder content, target slump, water/binder ratio and strength requirements.
- Trial 0.2–0.4% for plastic mixes or 0.3–1.5% for flowing/SCC mixes by binder mass.
- Dose in gauging water or into the mixer with water; never onto dry cement.
- Wet-mix thoroughly and test slump, retention, setting and segregation resistance.

PLACEMENT & QUALITY CHECKS

- Record batch mass, binder content, admixture dosage and concrete temperature.
- Check slump / flow at batching and delivery against the approved retention window.
- Place, pump or compact per mix design and prevent unintended water addition.
- Cure promptly and verify compressive strength and durability as specified.

LIMITATIONS & SERVICE NOTES

- Confirm all additions by trial mixes using the actual project cement and aggregates.
- Do not use with naphthalene-based admixtures without a verified alternative design.
- Overdosing together with excess water may cause bleeding or segregation.
- Introduce other chemical admixtures separately; check compatibility by trials.
- Protect stored liquid from direct sun; recirculate after extended storage.

HEALTH, SAFETY & ENVIRONMENT

Use suitable gloves, eye protection and protective clothing when handling and dosing. Avoid skin and eye contact; do not discharge into drains or watercourses. Keep containers closed and follow safe spill-control and disposal practices. Review the current product Safety Data Sheet and relevant local site requirements before use.

QUALITY & PRODUCT INFORMATION

Performance depends on cement, binder blend, temperature, water/binder ratio, mixing sequence, transport time and curing. Do not assume identical dosage or slump-retention performance across different plants or mix designs. Obtain KREVO-specific quality-control, compatibility and standards-test records before making certified performance or compliance declarations.

KREVO | GLOBAL CONTACTS

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