# KREVO Mix PP-Fibre

Polypropylene microfibre for concrete | Plastic shrinkage crack control | Cementitious mixes

## PRODUCT DESCRIPTION

KREVO Mix PP-Fibre is a fine, 100% virgin polypropylene microfibre designed for incorporation into concrete, shotcrete and cementitious mixes. The uniformly dispersed fibres help control plastic shrinkage and settlement cracking and improve early-age integrity and surface durability. A surface treatment assists initial dispersion and interaction with the cement paste.

## ADVANTAGES

- Helps reduce plastic shrinkage and plastic settlement micro-cracking.
- Enhances early-age crack control in concrete and shotcrete.
- Fine, lightweight fibres disperse through a properly mixed cementitious matrix.
- Suitable for hot and tropical climates with appropriate curing practices.
- In shotcrete, may reduce rebound and support thicker single-pass application.

## TYPICAL USES

Ready-mix and site-mixed concrete • Shotcrete • Cementitious overlays • Industrial floor slabs • Precast patch repairs • Water-retaining structures • High-performance concrete • Tunnel segments

## PRODUCT INFORMATION

| PARAMETER | SPECIFICATION |
|---|---|
| **Generic type** | 100% virgin polypropylene microfibre |
| **Appearance / colour** | Fine, white fibre |
| **Nominal fibre length** | 12 mm – 18 mm – 25mm |
| **Nominal fibre diameter** | Approximately 18 µm |
| **Density at +25 °C** | Approximately 0.91 kg/L |
| **Melting point** | Approximately +160 °C |
| **Packaging** | 0.6 kg water-soluble bags; 30 bags per box (18 kg) |
| **Shelf life / storage** | 12 months; unopened, dry, shaded, +5 °C to +45 °C |

## TECHNICAL & APPLICATION PROPERTIES

| PARAMETER / TEST | TYPICAL VALUE / GUIDANCE |
|---|---|
| **Recommended dosage** | 0.6 kg/m$^3$ (600 g/m$^3$); confirm by trial mixing |
| **Primary function** | Control plastic and drying-shrinkage micro-cracking |
| **Concrete applications** | Normal concrete, high-performance concrete and overlays |
| **Shotcrete applications** | Crack control; may reduce rebound and pump-line pressure |
| **Precast applications** | Repair patches and tunnel lining segments |
| **Water-retaining structures** | Used as mix reinforcement for early-age crack control |
| **Binder compatibility** | Portland cement, fly ash, GGBS and silica fume systems |
| **Relevant fibre standard** | EN 14889-2 polymer fibre specification; compliance to be confirmed |

# Application & Mixing Guidance

KREVO Mix PP-Fibre | Recommended dosage, plant and truck mixing, concrete placement and curing

## MIX DESIGN & DISPERSION CONTROLS

| CONTROL ITEM | TYPICAL TARGET | INSPECTION | ACTION |
|---|---|---|---|
| **Nominal dosage** | 0.6 kg/m$^3$ | Verify batch quantity | Adjust by trial |
| **Fibre size** | 12mm -18mm - 25mm / 18 µm | Check product ID | Use approved grade |
| **Plant mixing** | After water and solids | Check dispersion | Mix thoroughly |
| **Truck mixing** | Start with ~30% water | Check sequence | Mix at full speed |
| **Fresh concrete** | Uniform mix | Inspect / trial | Cure promptly |

A nominal starting dosage of 0.6 kg/m$^3$ is suitable for mix trials. Required dosage may differ with cement, aggregate, supplementary cementitious materials, workability, weather and service requirements. Check fibre dispersion in the actual mixer and mixture.

## TYPICAL BATCHING & APPLICATION SEQUENCE

| STAGE | PROCEDURE / GUIDANCE |
|---|---|
| **1 \| Mix design** | Confirm required performance, aggregate, cement and 0.6 kg/m$^3$ starting dosage. |
| **2 \| Fibre batching** | Measure the fibre quantity for the actual concrete batch volume. |
| **3 \| Dispersion** | Use plant or truck sequence and mix until fibres are distributed uniformly. |
| **4 \| Concrete placing** | Place, compact and finish following approved concrete/shotcrete procedures. |
| **5 \| Curing / QC** | Cure promptly, check dispersion and record relevant batch data. |

## CEMENT, ADMIXTURE & MATERIAL COMPATIBILITY

Polypropylene microfibres are intended for use with conventional Portland cement mixtures and concretes containing supplementary cementitious materials such as fly ash, ground-granulated blast-furnace slag or silica fume. Compatibility with plasticizers, air-entraining admixtures and other additives should be verified by trial mixes.

## DOSAGE, DISPENSING & MIXING

For batching plant mixing, introduce the fibres after the other concrete constituents and mixing water, then mix until uniformly dispersed. For truck mixing where central batching is unavailable, introduce the fibres with approximately 30% of the mixing water, add remaining ingredients and water, and mix for several minutes at suitable mixing speed.

| INSTALLATION CONTROL | REQUIREMENT / GUIDANCE |
|---|---|
| **Dosage reference** | Approximately 0.6 kg/m$^3$ of concrete; test for final dosage. |
| **Packaging & handling** | 0.6 kg water-soluble packs; prevent heat and moisture damage. |
| **Mixing method** | Uniform dispersion by plant or truck sequence; prevent fibre balling. |
| **Curing** | Protect fresh concrete from rapid drying; follow approved practice. |
| **Storage** | Keep unopened and dry, +5 °C to +45 °C; 12-month shelf life. |

Use the entire designated fibre bag for each measured batch where practical. Avoid adding fibres into unmixed dry pockets or introducing too many packs at one point. Confirm workability, balling resistance and fibre distribution during the first project trials.

## CONCRETING, FINISHING & CURING

Follow recognised good concreting procedures for batching, transport, placing, compaction and finishing. Cure fresh concrete promptly, especially in hot or windy weather, to reduce moisture loss and early-age shrinkage. Fibres complement but do not replace proper curing, joint design or engineered structural reinforcement.

# Installation & Product Support

KREVO Mix PP-Fibre | Batching procedure, on-site controls, limitations, safety and product support

## BATCHING & MIXING PROCEDURE

- Verify the approved concrete mix design, batch volume and specified fibre dosage.
- Measure fibre quantity accurately; a typical starting dosage is 0.6 kg/$m^3$.
- Add fibres using the approved plant or truck mixing sequence and mix thoroughly.
- Inspect fresh mix for even dispersion, uniform workability and absence of fibre balls.

## PLACEMENT & QUALITY CHECKS

- Check slump/workability, homogeneity and the effect of fibres on finishing.
- Place and compact concrete or shotcrete according to the approved method statement.
- Maintain specified curing; protect fresh surfaces from heat, wind and early drying.
- Record dosage, concrete batch, mixing time and relevant trial-mix observations.

## LIMITATIONS & SERVICE NOTES

- Microfibres are principally for early-age crack control, not structural load design.
- Do not replace designed steel reinforcement, macrofibres or movement joints.
- Trial mixes are necessary when changing cement, aggregate or chemical admixtures.
- Improper addition or inadequate mixing may cause localised fibre clumping.
- Performance depends on correct dosage, substrate conditions and curing practice.

## HEALTH, SAFETY & ENVIRONMENT

Use good industrial hygiene during storage and batching. Avoid dust and loose fibres entering eyes or breathing zones. Wear suitable gloves, eye protection and other site PPE. Keep packaging away from heat, moisture and direct sunlight, and dispose of waste in accordance with local regulations. Follow the approved safety information for the supplied product.

## QUALITY & PRODUCT INFORMATION

Product performance varies with mix proportions, mixing equipment, environmental conditions and workmanship. Confirm the delivered KREVO fibre dimensions, packaging and batch quality documentation, and perform project-specific suitability trials before finalising the concrete mix. The stated fibre dosage is guidance and should not be interpreted as structural reinforcement equivalence.

## KREVO | GLOBAL CONTACTS


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