

Wiking® WEFF+P

Wiking® WEFF+ P is a highly fibrillated multifilament fibre made of polypropylene (PP), providing a multi-branched fibre with a large surface area and controlled free-flow characteristics, developed for use in wet processes and paper production.

The fibre is particularly suitable for pulp-based products, heat-sealable paper for packaging, filtration, paints and coatings, as well as an asbestos replacement, and offers excellent cement particle capture, formability, and thixotropy.

General Applications

- Paper production
- Wet-laid processes
- Pulp-based products
- Heat-sealable paper
- Filtration
- Paints
- Coatings
- Roof tiles
- Adhesives
- Asbestos replacement
- Fibre cement

General Applications in Cement Products

- Drv mortar
- Indoor flooring
- Precast elements
- Roofing sheets
- Facade panels

Specifications - Wiking® WEFF+ P

Material: 90 % PP. 10 % additives Fibre length: 2, 3, and 4 mm Density: ≤ 1.0 g/cm³ Multifilament Design: Diameter: 30 um Tensile strength: 655 MPa 3-6% Finish: **Chemical resistance:** High

Softening temperature: Approx. 160 °C Dosage: According to matrix and product

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Specifications

Wiking® WEFF+ P is specially developed to optimise the properties of all types of pulp-like materials, where it contributes to improved strength, structure, and processing characteristics.

Wiking® WEFF+ P is physically resistant to all chemicals, particularly in cementitious materials, where appearance and durability remain unaffected.

Concrete is most prone to cracking during the early drying phase, when shrinkage stress is at its peak. At this stage, Wiking® WEFF+ P prevents crack formation extremely effectively, as the fibre has a high dispersion capacity within the matrix. Its unique multi-branched structure results in a high fibre frequency, which captures and counteracts cracks as soon as they begin to form.

The fibre's structure and surface ensure that maximum tensile strength is efficiently transferred to the concrete and other cementitious materials. This allows early shrinkage stress to be evenly distributed throughout the concrete, thereby preventing cracking and long-term weaknesses. Wiking® WEFF+ P ensures that the matrix matures to reach its full strength potential.

Properties of Wiking® WEFF+ P

The characteristic properties of Wiking® WEFF+ P can be briefly described as:

- High specific surface area
- **Excellent dispersibility**
- High strength
- Enhanced bonding capacity in cementitious materials
- Superior texture composition
- Excellent fibre-to-fibre bonding
- Very high drainage properties
- Outstanding adhesive properties

Properties of polypropylene fibres with additives

Polypropylene with additives has the following characteristics:

- Density $\leq 1.0 \text{ g/cm}^3$
- Resistant to acids and bases

Delivery

Wiking® WEFF+ P is available in 480 kg pallets, 1 kg packs or 2 x 10 kg, big bags, or other formats upon request. Minimum order quantity is determined by agreement.

Surface treatment

The surface of the fibres is specially treated to ensure high dispersibility and adhesion in the matrix. This treatment also reduces air entrainment to approximately 1% in cementitious materials, resulting in low porosity in the concrete and thereby increased strength.

Guarantee references

Wiking® WEFF+ P complies with EN-14.889-2, Fibre Class 1b, System 1, and is produced in a facility certified to ISO 9001:2015, ISO 14001:2025, ISO 45001:2018, and ISO 50001:2018.

Danish Fibres does not control the company that manufactures and processes our products, and therefore cannot assume responsibility for the final products.

Health and safety

Please refer to the specific safety data sheet or contact Danish Fibres technicians.

Technical consultation

The technical department at Danish Fibres is available to assist you and can advise on the correct use of our products.

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