

SIRIOFIBRE STX

High-tenacity synthetic fibres for concrete and mortar



[info. TYPES]

- SIRIOFIBRE STX 30 - Length 30 mm for small prefabricated elements and mortars.
- SIRIOFIBRE STX 48 - Length 48 mm for screeds and flooring.

[info. DOSAGE]

Depending on specific applications and desired performance.

- Floors and decks: from 2.5 to 6.5 kg/m³
- Prefabrication: 4.5 kg/m³ replacing electro-welded mesh
- Shotcrete: from 4.5 to 13.5 kg/m³
- Reinforcement joints: 4.5 kg/m³

[info. PACKAGING]

- SIRIOFIBRE STX 30 mm: Box of 5 x 1000 g
- SIRIOFIBRE STX 48 mm: Box of 5 x 1000 g

[info. STORAGE]

The product should be stored in a cool, dry place in its original packaging.

[info. TECHNICAL SERVICE]

Detailed technical instructions on the use of the products can be requested from your local representative or directly from PROIND srl.

SIRIOFIBRE STX fibres are made from a special polymer blend based on white polypropylene, with additives that make them stable to UV rays and resistant to the alkalis present in cement. Their special structure ensures rapid and uniform dispersion within the mixtures, even during dry mixing. Unlike common synthetic monofilament or fibrillated fibres used in concrete and mortar to control plastic shrinkage, SIRIOFIBRE STX fibres give concrete a real boost in mechanical performance, improving residual strength after cracking, hardness and fatigue resistance.

Fields of application

Thin prefabricated slabs; fibre-reinforced plaster; industrial flooring; vases, manholes, pipes, fences, road barriers; joints; quick-drying screeds; non-structural prefabricated elements; premixed mortars.

Instructions for use

SIRIOFIBRE STX is added directly to the concrete mixer during the mortar or concrete production phase, taking care to monitor the mixing times and, if necessary, extend them to ensure optimal dispersion.

In most cases, the use of SIRIOFIBRE STX makes it possible to replace electro-welded mesh and is also a valid alternative to steel fibres, while ensuring high performance and competitiveness. Any reduction in the workability of the concrete can be easily compensated for with minimal adjustments: a slight increase in the amount of superplasticiser is sufficient to restore the original workability.

Advantages

- Uniform distribution of plastic and hydraulic shrinkage stresses, resulting in a reduction in cracking.
- Increased resistance to freeze-thaw cycles, abrasion and impact.
- Significant reduction in macro-cracks, with a significant increase in the impermeability of the cement mixture.
- Replacement of non-structural metal meshes.
- Increased ductility indices according to ASTM C 1018.

Compatibility

SIRIOFIBRE STX are fully compatible with all concrete additives, both from Proind and other manufacturers. Their function is exclusively mechanical and does not interfere in any way with the hydration processes of the cement paste.