



STERLING[®] RockSet[®] Conwrap Fibre-SF

TECHNOTRADE High Tensile Hooked end Structural Macro Steel Fiber for reinforcement
Of concrete optimized for road surfaces, industrial floors and shotcrete.

The Specialist Construction Chemical Company

Description:

Sterling[®] Rockset[®] Conwrap Fibre SF is a low carbon, cold drawn and hooked-end steel Fibres are designed specifically for the reinforcement of concrete, mortars and other cementitious mixes to provide concrete with temperature and shrinkage crack control, enhanced flexural reinforcement, has excellent mechanical properties including high tensile strength, improved shear strength and increase the crack resistance of concrete. Sterling[®] Rockset[®] Conwrap Fibre SF will also improve impact, shatter, fatigue and abrasion resistance while increasing toughness of concrete.

Sterling[®] Rockset[®] Conwrap Fibre SF complies with ASTM C1116, Standard Specification for Fiber Reinforced Concrete and Shotcrete and ASTM A820, Standard Specification for Steel Fibers for Fiber Reinforced Concrete.

Application Includes:

- Commercial and industrial slabs on ground
- Bridge decks, overlays and pavements
- Precast concrete applications
- Shotcrete, tunnel linings and slope stabilization
- Mass concrete and composite deck construction

Features & Benefits:

- Increases impact, fatigue endurance, shear strength, shatter and abrasion resistance of concrete
- Reduces segregation, plastic settlement, and increases crack resistance, ductility, energy absorption or toughness of concrete.
- Provides three-dimensional reinforcement against macro-cracking
- Increases overall durability, fatigue resistance and flexural toughness
- Reduction of in-place cost versus wire mesh
- Easily added to concrete mixture at any time prior to placement
- Conforms to ASTM C1609, ASTM C1550 and EN 14651
- Provides uniform multi-directional concrete reinforcement
- High tensile strength fiber bridging joints and cracks to provide tighter aggregate interlock resulting in increased load-carrying capacity
- Provides increased ultimate load-bearing capacity which allows possible reduction of concrete section
- Requires less labor to incorporate into concrete than conventional reinforcement

Shelf Life & Storage:

Shelf life is up to 36 months under condition that the macro fiber is stored in a dry place at a temperature from 0 to + 40°C without exposure to direct sunlight. The Sterling[®] Rockset[®] Conwrap Fibre SF must be in the original factory packaging. The placement of boxes with Sterling[®] Rockset[®] Conwrap Fibre SF should take place in a room protected from weather conditions, with a humidity of not more than 50%.

Packaging:

Sterling[®] Rockset[®] Conwrap Fibre SF is supplied in 25Kg HDPE Bags.

Certifications & Compliances

- Conforms to ASTM A820 /A 820M - 04, Type I cold drawn wire
- Conforms to ASTM C 1116/C 1116M, Type I fiber reinforced concrete

Technical Properties:

Material	Bright Carbon Steel Wire
Anchorage Type	Hooked Ends
Diameter (mm)	0.80 mm & 0.60mm
Ultimate Tensile	> 1000 MPa
Appearance	Clear, Bright, Loose Fibre with Hook End anchorage
Conforms To	EN 14889-1:2006, ASTM A820 M04 Standard
Aspect Ratio	62.5
Fibre Cut length (mm)	30,50,60 As Per Requirement

Compatibility:

The utilization of Sterling[®] Rockset[®] Conwrap Fibre SF may require the use of a mid-range water reducer or a high-range water reducer such as ConFlow[®] or FlowMax[®] families of admixtures to restore the required workability. In addition, slight increases in fine aggregate contents may be needed. Sterling[®] Rockset[®] Conwrap Fibre SF are compatible with all Techno Builders Solutions[®] range of admixtures. Their action in concrete is mechanical and will not affect the hydration process of the cement or compressive strength. Each liquid admixture should be added separately to the concrete mixture.

Dosage:

The Sterling[®] Rockset[®] Conwrap Fibre SF dosage will vary depending on the type of application, concrete mix design and the performance / toughness requirements of each particular project. Typically, steel fibre dosage will be in the range of 20 kg to 40 kg / m³. *STIPL's technical staff can offer advice on dosage requirements once performance requirements have been established by the project designer / engineer.

Cleanup information:

Loose Sterling® Rockset® Conwrap Fibre SF material should be disposed in proper receptacles for refuse. Finishing equipment with fibers embedded in concrete should be thoroughly cleaned.

Health & Safety Instructions:

Protect your health while working with this material, always use safety goggles, gloves and safety clothing. When handling hazardous materials or pressurized materials, or during any application that may result in spills, splashes or airborne particles, a full face shield is strongly recommended. Protect yourself and others on the jobsite. Consider property in proximity of the application area to prevent loss or damage. Protect your jobsite from unauthorized persons. Store all materials and equipment safely and out of reach of children and animals.

Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment. In case one of the components comes in contact with the skin, wash thoroughly with soap and water. Provide adequate ventilation in volume and pattern in working area.

***Further protection:** emergency showers and eyewash stations. Get immediate medical attention as needed.

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Application:

Sterling® Rockset® Conwrap Fibre SF steel fibres can be added during or after the batching of the concrete but should never be added as the first component. Such devices as conveyor belts, chutes and dispensers may be used to add fibres to the mixer at the ready mix plant. After the fibres have been added, the concrete should be mixed for sufficient time (minimum 5 minutes at full mixing speed) to ensure uniform distribution of the fibres throughout the concrete. The use of mid or high-range water reducing admixtures can be advantageous.

Precautions/Limitations:

Use of Sterling® Rockset® Conwrap Fibre SF may cause an apparent loss in measured slump of concrete. This may be offset with the use of a water reducing admixture if necessary. Sterling® Rockset® Conwrap Fibre SF should never be added to a "zero-slump" concrete. Ensure a minimum concrete slump of 3" (80 mm) prior to addition of Sterling® Rockset® Conwrap Fibre SF material. Sterling® Rockset® Conwrap Fibre SF may also be added in loose form to aggregate charging devices.

Disclaimer: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

Additional Information: Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd -The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

*Separate datasheet are available on these products.

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