

# Xorex<sup>®</sup> Steel Fibre







# PRIMARY APPLICATIONS

- Commercial and Industrial Slabs On Ground
- Shotcrete
- Composite Metal Decks
- Overlays
- Airport Pavements
- · Highway Pavements
- Hydrodynamic Structures
- Equipment Foundations
- Precast

# XOREX - THE VERSATILE FIBRE

Xorex steel fibre is a leading low carbon, cold drawn steel wire fibre concrete reinforcement. It is evenly distributed in concrete mixtures to provide improved mechanical bonding capacity exceeding most performance specifications for enhancing concrete's flexural and shear strength, fatigue endurance, impact resistance and ductility. Xorex has been used in over 150 million square feet (15 million square meters) of slabs on ground for industrial floors. It is a reliable, cost efficient concrete reinforcement that is designed to be easy to mix, place and finish.

## FEATURES & BENEFITS

- Complies with ASTM A820.
- Variable equivalent diameter and a continuously deformed shape provide reinforcement resulting in tighter cracks and joints.
- Improves the impact resistance, fatigue endurance and shear strength of concrete.
- Provides contraction joint stability and crack width control.
- Manufactured in different lengths to meet specific applications.
- Provides uniform, multi-directional concrete reinforcement.
- Requires less labour to incorporate into concrete applications than
  rebar or wire mesh.
- Offers greater project scheduling accuracy.
- No special equipment is needed to mix, place or finish.
- Compatible with all types of cements and concrete mixtures.
- Backed by our team of concrete experts who carefully analyze each project and provide steel fibre design recommendations to help ensure maximum product performance and cost efficiency.

# COMPLIANCE

- Xorex steel fibre concrete reinforcement complies with ASTM A820.
- Materials, batching requirements, mixings and testing procedures should comply with the applicable sections of ASTM C1116 and ASTM C1436.

UNLEASH THE POWER OF STEEL FIBER

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# Xorex<sup>®</sup> Steel Fiber

## PRODUCT SPECS

#### PRODUCT USE

- MIXING Xorex steel fibre can be added before, during or after the batching of the concrete. Materials, batching requirements, mixings and testing procedures should comply with the applicable sections of ASTM C1116 and ASTM C1436.
- **PLACING** Xorex steel fibre can be pumped and placed using conventional equipment. Hand screeds, laser screeds and vibratory screeds can be used.
- **FINISHING** Conventional finishing techniques and equipment can be used when finishing Xorex steel fibre concrete. In some cases an extra bull float process is advised and lowering the angle of the floating blades will help to minimize fibre exposure on the surface. SI Concrete Systems personnel can help to determine the best solution for your job.

#### REFERENCE DOCUMENTS

- ASTM A820 Standard Specification for Steel Fibres for Fibre-Reinforced Concrete.
- **ASTM C1018** Standard Test Method for Flexural Toughness and First-Crack
  - Strength of Fibre-Reinforced Concrete.
- **ASTM C1116** Standard Specification for Fibre-Reinforced Concrete and Shotcrete.
- **ASTM C1399** Average Residual Strength of Fibre Reinforced Concrete.
- ASTM C1436 Standard Specification for Materials for Shotcrete.
- ACI 506 Guide for Shotcrete.
- ACI 544-3R Guide for Specifying, Proportioning, Mixing, Placing, and Finishing Steel Fibre Reinforced Concrete.

#### TECHNICAL INFORMATION

FIBER	XOREX
Minimum Tensile Strength	828MPa (120,000psi)
Fiber Length	25, 35, 50 & 63mm (1.0, 1.5, 2.0 & 2.5in.)
Average Equivalent Diameter	1.0mm (0.040in.)
Average Aspect Ratio	25,35,50&63
Deformation	Continuously deformed circular segment.
Appearance	Bright and clean wire.

#### PACKAGING

Xorex steel fibre is packaged in 25kg (55lb), five ply, paper and polyethylene lined bags. Also available in 800kg bulk bags on request.

#### SAFETY

It is recommended that gloves and eye protection be used when handling or adding Xorex steel fibre to concrete.



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