NOVOCON® XRI035

PRODUCT DATA SHEET

NOVOCON® XRI035 STEEL FIBRE

Novocon® XR1035, steel fibres are designed specifically for the reinforcement of concrete, mortars and other cementitious mixes. Novocon® XR1035 is a leading general purpose low carbon, cold drawn segment wire fibre that is continuously deformed to provide optimum performance within the concrete mix. Novocon® XR1035 steel fibres European Standard EN 14889-1:2006 compliant and specifically designed to meet or exceed the performance and economic requirements of our customers .

FEATURES & BENEFITS

- Provides uniform multi-directional concrete reinforcement
- Increases crack resistance, ductility, energy absorption or toughness of concrete
- Improves impact resistance, fatigue endurance and shear strength of concrete
- High tensile strength fibre 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 labour to incorporate into concrete than conventional reinforcement
- Offers economical concrete reinforcement solutions with greater project scheduling accuracy
- Ideally suited for hand or vibratory screeds, laser screeds and all conventional finishing equipment

PRIMARY APPLICATIONS

- Sprayed concrete
- Precast
- Overlays & screeds

COMPLIANCE

- Complies with European Standard EN 14889-1:2006 Fibres for Concrete Part 1: Group IV and carries CE marking
- \bullet Conforms to ASTM A820/A820M-04, Type V cold drawn segment wire

NOMINAL PHYSICAL PROPERTIES

Fibre Length

35 mm

Equivalent Diameter

0.85 to 1.45 mm

Tensile Strength

800 N/mm² minimum

Deformation

Continuously deformed

Appearance

Bright and clean wire



NOVOCON® XRI035

PRODUCT USE

MIXING DESIGNS AND PROCEDURES: Novocon® XR1035 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, but is not essential.

PLACING: Novocon® XR1035 steel fibres can be pumped and placed using conventional equipment. Hand or vibratory screeds and laser screeds can be used with Novocon® XR1035 steel fibres.

FINISHING: Conventional finishing techniques and equipment can be used when finishing Novocon® XR1035 steel fibre concrete. In some cases an extra bull float process is advised and lowering the angle of the power float blades will help to minimize fibre exposure on the surface.

DOSAGE RATE: The fibre 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 per cubic meter. Propex Concrete Systems technical staff can offer advice on dosage requirements once performance requirements have been established by the project designer/engineer.

COMPATIBILITY

Novocon® XR1035 steel fibres are compatible with all curing compounds, super plasticizers, water reducers, hardeners and coatings.

SAFETY

It is recommended that gloves and eye protection be used when handling or adding Novocon® XR1035 steel fibres to concrete.

PACKAGING

Novocon® XR1035 fibres are available, as standard, in 25 kg packaging. They are also available upon request in 1000 kg bulk bags. The pallets should be protected against rain and snow. Do NOT stack pallets on top of each other.

TECHNICAL SERVICES

Propex Concrete Systems is backed by our team of concrete reinforcement specialists who can carefully analyze each project and provide fibre reinforced concrete design solutions to ensure maximum project performance and cost efficiency.

REFERENCES

- European Standard EN 14889 -1:2006 Fibres for Concrete
- ASTM A820/A820M-04 Standard Specification for Steel Fibers for Fibre Reinforced Concrete.
- ASTM CIII6 /C III6M Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
- ASTM C 1609/C 1609M Standard Test Method for Flexural Performance of Fiber Reinforced Concrete (Using beam with thirdpoint loading). Replaces ASTM C1018.
- JCI-SF4 Method of Test for Flexural Strength and Flexural Toughness of Fiber Reinforced Concrete.
- Concrete Society (UK) Technical Report 34 Concrete Industrial Floors

SPECIFICATION CLAUSE

Fibres for concrete shall be Novocon® XR1035 continuously deformed steel fibres conforming to EN 14889-1:2006 Group IV and manufactured from cold drawn segment wire with a minimum tensile strength of 800 N/mm².

Unless otherwise stated Novocon® XR1035 steel fibres shall be added to the concrete at the recommended application rate ofkg per cubic metre and mixed for sufficient time (minimum 5 minutes at full mixing speed) to ensure uniform distribution of the fibres throughout the concrete.

Fibrous concrete reinforcement shall be manufactured by:

Propex Concrete Systems, Propex House, 9 Royal Court, Basil Close, Chesterfield, Derbyshire, S41 7SL. United Kingdom. Telephone: + 44 (0) 1246 564200, Fax: + 44 (0) 1246 564201, e-mail: enquiries@propexinc.co.uk



USA 4019 Industry Drive Chattanooga, Tennessee 37416 TEL: (423) 892-8080 FAX: (423) 892-0157 INTERNATIONAL Propex House, 9 Royal Court, Basil Close, Chesterfield, Derbyshire, S41 7SL. UK TEL: +44 (0) 1246 564200 FAX: +44 (0) 1246 564201

www.fibermesh.com

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