NOVOCON® BY PROPEX

PRODUCT DATA • NOVOCON® HE1050

ADVANTAGES OF NOVOCON HE1050 STEEL FIBRES:

- Requires no minimum amount of concrete cover
- Always positioned in compliance with codes
- Safe and easier to use than traditional reinforcement
- Reduces construction time
- Improved durability

NOVOCON HE1050 STEEL FIBRES

Novocon HE1050 steel fibres are designed specifically for the reinforcement of concrete, mortars and other cementitious mixes. Novocon HE1050 is a cold drawn wire fibre, deformed with hooked ends to provide optimum performance within the concrete mix. Novocon HE1050 steel fibres are European Standard - EN 14889-1:2006 compliant and have been specifically designed to meet or exceed the defined performance requirements.

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 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
- 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

- Ground supported slabs
- Suspended floors
- Jointless floors
- External roads & pavements
- Precast
- Overlays
- Walls
- Blast-resistant concrete

COMPLIANCE

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

NOMINAL PHYSICAL PROPERTIES

Fibre Length	*50mm*	Tensile Strength	*1,250 N/mm²*
Diameter	*1.0mm*	Deformation	*Hooked End*
Aspect Ratio	*50*	Appearance	*Bright & clean wire*

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PRODUCT USE

MIXING: Novocon HE1050 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 HE1050 steel fibres can be pumped and placed using conventional equipment. Hand or vibratory screeds and laser screeds can be used with Novocon HE1050 steel fibres.
FINISHING: Conventional finishing techniques and equipment can be used when finishing Novocon HE1050 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: 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. Fibermesh technical staff can offer advice on dosage requirements once performance requirements have been established by the project designer/engineer.

COMPATIBILITY

Novocon HE1050 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 HE1050 steel fibres to concrete. Full Safety Data Sheets are available on request.

PACKAGING

Novocon HE1050 fibres are available, as standard, in 25kg 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

Fibermesh 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.

REFERENCE DOCUMENTS

- European Standard EN 14889 -1:2006 Fibres for Concrete
- ASTM A820/A820M-04 Standard Specification for Steel Fibers for Fiber Reinforced Concrete
- ASTM CIII6/C1116M Standard Specification for Fiber-Reinforced Concrete
- ASTM C1399 Standard Test Method for Obtaining Average Residual-Strength of Fiber Reinforced Concrete
- ASTM C1550 Standard Test Method for Flexural Toughness of Fiber Reinforced Concrete (Using centrally loaded round panel)
- ASTM C 1436 Standard Specification for Materials for Shotcrete
- ASTM C 1550 Standard Test Method for Flexural Toughness of Fiber Reinforced Concrete (Using Centrally Loaded Round Panel)
- ASTM C1609/C1609M Standard Test Method for Flexural Performance of Fiber-Reinforced Concrete. (Replaces ASTM C1018)
- JCI-SF4 Method of Test for Flexural Strength and Flexural Toughness of Fiber Reinforced Concrete
- Concrete Society (UK) Technical Report 63 Guidance for the Design of Steel Fibre Reinforced Concrete
- Concrete Society (UK) Technical Report 34 Concrete Industrial Floors
- Concrete Society (UK) Technical Report 66 External In-situ Concrete Paving

SPECIFICATION CLAUSE

Fibres for concrete shall be Novocon HE1050 hooked end steel fibres conforming to EN 14889-1:2006 Group I and manufactured from cold drawn wire with a tensile strength of 1250 N/mm^2.

Unless otherwise stated Novocon HE1050 steel fibres shall be added to the concrete at the recommended application rate of .....kg 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,
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