

PRODUCT DATA SHEET

Novocon® XR-1050

Steel fibres for concrete



DESCRIPTION

Novocon® XR-1050, steel fibres are designed specifically for the reinforcement of concrete, mortars and other cementitious mixes. Novocon® XR-1050 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® XR-1050 steel fibres European Standard EN 14889-1:2006 compliant and specifically designed to meet or exceed the performance and economic requirements of our customers.

USES

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

CHARACTERISTICS / ADVANTAGES

- Provides uniform, multi-directional concrete reinforcement
- Increases crack resistance, ductility, energy absorption and toughness of concrete
- Improves impact resistance, fatigue endurance and shear strength of concrete

- High tensile-strength fibre bridges joints and cracks, resulting in increased load-carrying capacity and 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

APPROVALS / CERTIFICATES

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

Reference Documents

- European Standard EN 14889 -1:2006 Fibres for Concrete
- ASTM A820/A820M-04 Standard Specification for Steel Fibers for Fibre Reinforced Concrete.
- ASTM C1116 /C 1116M 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 third-point 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

PRODUCT INFORMATION

Composition	Bright and clean wire (continuously deformed)
Packaging	Novocon® XR-1050 fibres are available, as standard, in 25 kg packaging.
Shelf life	24 months from date of production

Storage conditions The pallets should be protected against rain and snow. Do NOT stack pallets on top of each other.

Dimensions	Fibre Length	Equivalent Diameter
	50mm	1.20 to 1.45mm

TECHNICAL INFORMATION

Specific advice It is recommended that gloves and eye protection be used when handling or adding Novocon® XR-1050 steel fibres to concrete.

Tensile strength 690 N/mm² minimum

APPLICATION INFORMATION

Recommended 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. Sika technical staff can offer advice on dosage requirements once performance requirements have been established by the project designer/engineer.

Compatibility Novocon® XR-1050 steel fibres are compatible with all curing compounds, superplasticisers, water reducers, hardeners and coatings.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

Mixing

Novocon® XR-1050 steel fibres can be added during or after the batching of the concrete but should never be added as the first component. The specified dosage per cubic metre should be steadily added to the concrete mixer and mixed for sufficient time (minimum 5 minutes) at full mixing speed to ensure uniform distribution of the fibres throughout the concrete mix. The use of mid or high-range water reducing admixtures can be advantageous, but is not essential. In order to achieve optimum distribution of fibres we recommend the use of approved conveyor and/or automated dosing systems. Cardboard boxes and non-degradable bags should NOT be added to the concrete.

Placing

Novocon® XR-1050 steel fibres can be pumped and placed using conventional equipment. Hand or vibratory screeds and laser screeds can be used with Novocon® XR-1050 steel fibres.

Finishing

Conventional finishing techniques and equipment can be used when finishing Novocon® XR-1050 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.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

Sika Hellas ABEE

15 Protomagias Str.
14568 Kryoneri
Attica-Greece
Tel.: +30 210 8160 600
Fax: +30 210 8160 606
www.sika.gr | sika@gr.sika.com



Product Data Sheet

Novocon® XR-1050
April 2021, Version 02.01
021408011000000034

NovoconXR-1050-en-GR-(04-2021)-2-1.pdf