



## PRODUCT DATA SHEET

# SikaFiber® Novomesh®-850

Blended Fiber - Steel Fiber Type V and Micro Synthetic

### PRODUCT DESCRIPTION

SikaFiber® Novomesh®-850 an engineered blend of steel and micro fibers are designed specifically for the reinforcement of concrete. SikaFiber® Novomesh®-850 is a cold drawn continuously deformed steel fiber and 100 percent virgin homopolymer polypropylene graded multifilament micro synthetic fiber. The blend of steel and micro fiber provide optimum combination of plastic shrinkage and long term reinforcement within the concrete. SikaFiber® Novomesh®-850 previously Novomesh 850 or SikaFiber Force 850.

### WHERE TO USE

- Commercial and light industrial slabs on ground
- Equipment foundations
- Composite metal decks
- Pavements
- Overlays

### CHARACTERISTICS / ADVANTAGES

- 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
- Steel fiber bridging joints and cracks to provide tighter aggregate interlock resulting in increased load-carrying capacity
- Provides increased ultimate load-bearing capacity
- Requires less labor to incorporate into concrete than conventional reinforcement
- Micro synthetic fiber reduces plastic shrinkage cracking

### APPROVALS / CERTIFICATES

- Steel fiber conforms to ASTM A820 /A 820M - 04, Type V cold drawn wire
- Synthetic micro fiber conforms to ASTM D7508
- Conform to ASTM C 1116/C 1116M, Type I & Type III fiber reinforced concrete
- UL Classified: For use as an alternate or in addition to the welded wire fabric used in Floor-Ceiling D700, D800, D900 Series Designs. Fibers may also be used in Floor-Ceiling Design Nos. G229, G243, G256, G514

### PRODUCT INFORMATION

<b>Packaging</b>	SikaFiber® Novomesh®-850 fibers are available in 10.9 kg degradable bags.
<b>Appearance / Colour</b>	<p>Micro synthetic:</p> <ul style="list-style-type: none"> <li>▪ <b>Fiber Type:</b> Monofilament Micro Synthetic Fiber</li> <li>▪ <b>Fiber Network:</b> 48,400,000 fibers/kg</li> </ul> <p>Steel fiber:</p> <ul style="list-style-type: none"> <li>▪ <b>Fiber Type:</b> Continously Deformed Steel Fiber Type V</li> <li>▪ <b>Fiber Network:</b> 3,300 fibers/kg</li> </ul>

<b>Shelf Life</b>	If stored in dry conditions shelf life is 5 years.
<b>Storage Conditions</b>	SikaFiber® Novomesh®-850 should be stored in a dry warehouse. Protect product from the rain.
<b>Dimensions</b>	<p>Steel Fiber:</p> <ul style="list-style-type: none"> <li>▪ <b>Length:</b> 38 mm</li> <li>▪ <b>Equivalent Diameter:</b> 1.14 mm</li> <li>▪ <b>Aspect Ratio:</b> 30</li> </ul> <p>Synthetic Micro Fiber:</p> <ul style="list-style-type: none"> <li>▪ <b>Length:</b> Graded 12.7 &amp; 19 mm.</li> <li>▪ <b>Diameter:</b> 0.03 &amp; 0.05 mm.</li> <li>▪ <b>Aspect Ratio:</b> Varies from 250 to 630</li> </ul>

## TECHNICAL INFORMATION

<b>Tensile Strength</b>	Steel fiber: >140 ksi (964 MPa)
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## APPLICATION INFORMATION

<b>Recommended Dosage</b>	The dosage of the SikaFiber® Novomesh®-850 will vary according to the type of application and the performance requirements of the project. Standard recommended dosage rate of SikaFiber® Novomesh®-850 is between 14–28.5 kg/m <sup>3</sup> of concrete. Dosages outside the recommended dosage range can be used to meet project specific requirements. If this is the case please contact your Sika representative for technical support.
<b>Mixing</b>	<p>SikaFiber® Novomesh®-850 in degradable bag can be added directly to the concrete mixing system after the batching of the other ingredients and mixed for 4 to 5 minutes or 70 revolutions. Only a water reducing or high range water reducing admixture should be used to adjust concrete to the desired workability.</p> <p><b>Application</b> The addition of SikaFiber® Novomesh®-850 at the normal recommended dosage rate does not require any mix design or application changes. The fiber concrete can be mixed, sprayed or placed using conventional equipment.</p> <p><b>Tooling &amp; Finishing</b> SikaFiber® Novomesh®-850 can be used in power/hand troweled concrete, colored and broom finished concrete. Fiber reinforced concrete can be finished by most finishing techniques as indicated in ACI-302. Proper timing and workmanship are important when using a steel fiber to insure the fiber is not elevated at the surface.</p>

## BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

## ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-

related data.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

## 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: [www.sika.ca](http://www.sika.ca)

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**Other locations**

Boisbriand (Quebec)  
Brantford; Cambridge;  
Sudbury; Toronto (Ontario)  
Edmonton (Alberta)  
Surrey (British Columbia)

**Product Data Sheet**

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