

# SikaFiber® Force-950 *(Formerly Novamesh 950)*

## Blend of Macro and Micro Synthetic Fibres

**Description** SikaFiber® Force-950 is a blend of polypropylene/polyethylene high performance macro monofilament fibres with 100% virgin polypropylene micro synthetic fibres. SikaFiber® Force-950 is designed to provide a high performing reinforcement system for concrete. SikaFiber® Force-950 is specifically engineered and manufactured to reduce plastic and hardened concrete shrinkage, increase fatigue resistance, improve concrete toughness and improve impact strength.

**Where to Use** SikaFiber® Force-950 macro synthetic fibres can significantly enhance the performance of all types of concrete and cement-based building products. SikaFiber® Force-950 is excellent for use in industrial floors, bridge decks, loading docks and in precast products like septic tanks, burial vaults, manholes and architectural panels. It can also be used in shotcrete applications.

- Advantages**
- Provides multi-dimensional reinforcement;
  - Reduces and/or replaces non-structural steel reinforcement, such as welded wire reinforcement and light rebar;
  - Improves concrete toughness, fatigue-resistance and long-term durability;
  - Increases impact-, shatter- and abrasion-resistance of concrete;
  - Reduces segregation, plastic settlement and plastic and hardened shrinkage cracking;
  - Saves time and money when compared to alternate reinforcing systems;
  - Easy to use and work with.

**Standards** SikaFiber® Force-950 meet the material requirements of ASTM C1116 Type III fibres.

Typical Data	
<b>Packaging</b>	3.000 g/bag 4 bags/box 24 boxes/pallet The macro monofilament component of the fibre is collated in small bundles within the degradable bag for rapid distribution.
<b>Coarse Macro Fibres:</b>	
<b>Fibre Length</b>	45 mm
<b>Specific Gravity</b>	0.91
<b>E Modulus</b>	4 GPa
<b>Tensile Strength</b>	448 MPa
<b>Melt Point</b>	164 °C
<b>Absorption</b>	Nil
<b>Fine Micro Fibres:</b>	
<b>Fibre Length</b>	Graded
<b>Specific Gravity</b>	0.91
<b>Melt Point</b>	162 °C
<b>Absorption</b>	Nil
<b>Shelf Life and Storage</b>	5 years if stored in original and unopened packaging and in dry conditions. Protect product from the moisture and rain.

### How to Use

**Dosage** While the application rate for SikaFiber® Force-950 fibres will vary depending on the application, mix design and the specific requirements of each project, the typical dosage varies between 3 kg per cubic meter and 6 kg per cubic meter of concrete.

**Mixing** The SikaFiber® Force-950 fibres can be added to the mixer before, during or after batching the other concrete materials and mixed at high speed for four to five minutes. Additional mixing does not adversely affect the distribution or overall performance of SikaFiber® Force-950. The addition of SikaFiber® Force-950 at the recommended dosage rates to a given mix may decrease the slump; however, additional water should not be added. Only a water-reducing admixture should be used to adjust concrete to the desired workability required for placement.



# Construction

## Tooling and Finishing

The addition of SikaFiber® Force-950 fibres at the normal recommended dosage rate does not require any mix design or application changes. If additional workability is required, a Sika mid-range or high-range water-reducer is recommended instead of extra mixing water. Fibre-reinforced concrete can be finished by most finishing techniques. SikaFiber® Force-950 does not affect the finishing characteristics of concrete. SikaFiber® Force-950 can be used in power- or hand- trowelled concrete, and with coloured and broom-finished concrete.

## Clean Up

Use personal protective equipment (chemical resistant goggles/gloves/clothing). Ventilate area. In absence of adequate ventilation, use properly-fitted NIOSH respirator. Without direct contact, remove spilled or excess product and place in suitable sealed container. Dispose of excess product and container in accordance with applicable environmental regulations.

## Health and Safety Information

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

KEEP OUT OF REACH OF CHILDREN  
FOR INDUSTRIAL USE ONLY

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, within their shelf life. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under [www.sika.ca](http://www.sika.ca).



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