SikaFiber® PPF
Fibrillated Polypropylene Micro-Synthetic Fiber

Description
SikaFiber® PPF is a fibrillated polypropylene fiber for use in fiber reinforced concrete. SikaFiber® PPF is primarily used for the purpose of providing secondary/temperature-shrinkage reinforcement in concrete. The fibrillated pattern of SikaFiber® PPF optimizes the mechanical bond between the mortar matrix and fiber networks. This provides better control of plastic shrinkage cracking and plastic settlement cracking. SikaFiber® PPF provides a good alternative to welded wire fabric in light commercial and residential slab-on-grade applications. SikaFiber® PPF meets the requirements of ASTM C-1116, Type III fiber and ICC ES AC32 sections 3.1.1 (plastic shrinkage reinforcement) and 3.1.2 (temperature-shrinkage reinforcement).

Applications
SikaFiber® PPF acts mechanically by reinforcing the concrete with multi-dimensional fiber network coated with mortar.

SikaFiber® PPF can be used in all types of concrete. Typical applications include - Residential and commercial slab-on-grade, decks, precast elements etc.

SikaFiber® PPF can decrease plastic and drying shrinkage cracking and increase impact resistance in young concrete. In case concrete is exposed to fire, the presence of SikaFiber® PPF in concrete prevents explosive spalling of the concrete. SikaFiber® PPF can be used in shotcrete to reduce rebound and allow for building higher thickness in one pass.

SikaFiber® PPF does not affect the concrete curing process and does not absorb mix water.

Benefits
- Provides temperature-shrinkage reinforcement.
- Reduces plastic shrinkage and plastic settlement cracking.
- Provides multi-dimensional reinforcement.
- Improves impact, shatter and abrasion resistance of concrete.
- Enhances durability and toughness of concrete.
- Reduces bleeding.
- Excellent finishability.

Typical Data
<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Fibrillated polypropylene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiber length</td>
<td>0.75” (19 mm), 1.5” (38 mm) or 2” (51 mm)</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>0.91</td>
</tr>
<tr>
<td>E - modulus</td>
<td>800 ksi (5516 MPa)</td>
</tr>
<tr>
<td>Alkali resistance</td>
<td>Excellent Alkali resistance</td>
</tr>
<tr>
<td>Melting point</td>
<td>320°F (160°C)</td>
</tr>
</tbody>
</table>

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.
How to Use

**Dosage**

Typical standard dosage rate of SikaFiber® PPF in concrete is 1.5 lb/cu.yd (0.9 kg/m³) or as required by specific mix design.

**Mixing**

SikaFiber® PPF is packaged in degradable bags which readily break up during the mixing of concrete. SikaFiber® PPF can be added directly to the concrete mixing system during or after the batching of the ingredients and mixed at high speed for four to five minutes. Additional mixing does not adversely affect the distribution or overall performance of SikaFiber® PPF. The addition of SikaFiber® PPF at the recommended dosage rates to a given mix may decrease the workability, which should be adjusted by use of an appropriate water reducing admixture. The addition of SikaFiber® PPF at the normal recommended dosage rate does not require any mix design or application changes.

**Tooling & Finishing**

Fiber reinforced concrete can be finished by most finishing techniques. SikaFiber® PPF does not affect the finishing characteristics of concrete. SikaFiber® PPF can be used in power/hand troweled concrete, colored and broom finished concrete.

**Compatibility:** SikaFiber® PPF is compatible with all types of cements, supplementary cementitious materials and Sika admixtures.

**Packaging**

SikaFiber® PPF is available in 0.75” (19 mm), 1.5” (38 mm) or 2” (51 mm) length in various pack sizes in degradable bags.

**Storage and Shelf Life**

SikaFiber® PPF should be stored in dry warehouse. Protect product from the rain.

If stored in dry conditions shelf life is 5 years.

---

**KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN • NOT FOR INTERNAL CONSUMPTION • FOR INDUSTRIAL USE ONLY • FOR PROFESSIONAL USE ONLY**

All information provided by Sika Corporation ("Sika") concerning Sika products, including but not limited to, any recommendations and advice relating to the application and use of Sika products, is given in good faith based on Sika's current experience and knowledge of its products when properly stored, handled and applied under normal conditions in accordance with Sika’s instructions. In practice, the differences in materials, substrates, storage and handling conditions, actual site conditions and other factors outside of Sika's control are such that Sika assumes no liability for the provision of such information, advice, recommendations or instructions related to its products, nor shall any legal relationship be created by or arise from the provision of such information, advice, recommendations or instructions related to its products. The user of the Sika product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with the full application of the product(s). Sika reserves the right to change the properties of its products without notice. All sales of Sika products. The user of the Sika product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with the full application of the product(s). Sika reserves the right to change the properties of its products without notice. All sales of Sika product(s) are subject to its current terms and conditions of sale which are available at http://usa.sika.com/ or by calling 800-933-7452.

Sika warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties when properly stored, handled and applied under normal conditions in accordance with Sika’s instructions. In practice, the differences in materials, substrates, storage and handling conditions, actual site conditions and other factors outside of Sika’s control are such that Sika assumes no liability for the provision of such information, advice, recommendations or instructions related to its products, nor shall any legal relationship be created by or arise from the provision of such information, advice, recommendations or instructions related to its products. The user of the Sika product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with the full application of the product(s). Sika reserves the right to change the properties of its products without notice. All sales of Sika product(s) are subject to its current terms and conditions of sale which are available at http://usa.sika.com/ or by calling 800-933-7452.

Sika warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer’s sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor.

NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.