

Product Data Sheet

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SikaFiber® PPM 6 mm

SikaFiber® PPM 6 mm**Monofilament Polypropylene Fibres For Explosive Spalling Protection**

Description	SikaFiber® PPM 6 mm fibre micro-reinforcement system for use as anti-explosive spalling protection. SikaFiber® PPM 6 mm fibres provide a three-dimensional protection system throughout the concrete, supplying the precise permeability required to relieve the steam pressure created within concrete when exposed to fire. SikaFiber® PPM 6 mm is a 100 % virgin homopolymer polypropylene monofilament fibre containing no reprocessed olefin materials. Specifically engineered and manufactured in an ISO 9001-certified facility for use as secondary concrete reinforcement.	
Where to Use	On all types of concrete requiring protection against explosive spalling, such as: <ul style="list-style-type: none"> ■ Tunnel precast segments ■ Vaults ■ Underground structures (cast-in-place or sprayed concrete) 	
Advantages	<ul style="list-style-type: none"> ■ Reduces the risk of explosive spalling occurring when concrete is exposed to fire ■ Reduces the formation of plastic shrinkage cracking in concrete ■ Provides multi-dimensional reinforcement in the first 24 hours ■ Improves impact-, shatter- and abrasion-resistance of concrete ■ Enhances durability ■ Provides aggregate support to reduce bleed water ■ Excellent finishability 	
Standards	SikaFiber® PPM 6 mm fibres are UL-classified and comply with ASTM C1116 Type III and European Standard EN 14889-2.	
	Typical Data	
	Packaging	1000 g degradable bags 12 bags/box 27 boxes/pallet
	Fibre Type	Monofilament polypropylene Length : 6 mm Diameter: 32 microns
	Shelf Life and Storage	5 years stored in original and unopened packaging. Store in dry conditions. Protect product from the moisture and rain.
	Properties	
	Absorption	Nil
	Specific Gravity	0.91
	Electrical Conductivity	Low
	E-Modulus	0.8 to 1.4 GPa
	Alkali resistance	Excellent alkali resistance
	Acid and Salt Resistance	High
	Melt Point	160 °C
	Ignition Point	404 °C
	Thermal Conductivity	Low
How to Use		
Dosage	Standard recommended dosage rate: 0.9 - 2.0 kg/m ³ of concrete.	
Mixing	SikaFiber® PPM micro reinforcing is a mechanical, not chemical, process. The addition of SikaFiber® PPM 6 mm monofilament fibres does not require any additional water or other mix design changes at normal rates. The fibres are added to the mixer before, during or after batching the other concrete materials. Mixing time and speed are specified in ASTM C94.	



Construction

Tooling and Finishing	Fibre-reinforced concrete can be finished using most finishing techniques. Exposed aggregate, broomed and tined surfaces do not present a problem.
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.



Sika Canada Inc.
Head Office
601 Delmar Avenue
Pointe-Claire, Quebec
H9R 4A9

Other locations
Toronto
Edmonton
Vancouver

1-800-933-SIKA
www.sika.ca

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