

Polymer fiber for concrete, mortar, grout.

Product description	Polymer fibers are used in construction applications (for concrete, mortar, grout).
Use	<ul style="list-style-type: none"> used to reinforce concrete surfaces, including concrete floorings in industrial and commercial buildings (cold rooms, refrigerators, garages, concrete for floors, etc.) in prefabricated elements (troughs, drainage systems, tanks, swimming pools) and other applications of cement binders to reduce cracks and microcracks, used as twisted in concrete structures as reinforcement material, Concrete materials including POLYEX MESH 2000 fibers can also be used in constructions of tunnels, mines, and the performance of roads and bridges surfaces.
Properties	<p>POLYEX MESH 2000 fibers improve the quality of the construction materials. They simplify the construction process while ensuring high quality of the finished slab. They inhibit the shrinking induced by early cracking of the concrete and increase its value. Strengthen resistance of the concrete to impact and corrosion, etc. POLYEX MESH 2000 fibers are cheaper to use, greener and lighter than steel reinforcement. The key features of Polyex Mesh 2000 fiber in the concrete include:</p> <ul style="list-style-type: none"> Lack of corrosion, Reduction of plastic cracking, Increase of weather resistance, Increase of frost resistance, Additional resistance to fragmentation, Reduction of water absorption, Better workability, Increase of bending strength, Longer durability, Increased impact strength.
SICON POLYEX MESH 2000 product data	
Form	White / gray twisted fibers
Package	Paper bags and cardboard boxes placed on pallets; a single pallet up to 240kg
Shelf life	Avoid storing longer than 36 months. Store in undamaged original packaging.
Storage conditions	<ul style="list-style-type: none"> Store the product in a dry, cool place, avoid direct sunlight, protect from frost and high temperatures, optimally: 5 -25°C.
Technical data	
Chemical composition	The fibers are chemically polymers from the group of polyolefins. The polymer is composed of monomer units of the following formula: $-\text{[CH}_2\text{CH(CH}_3\text{)]}-$.
Melting point	160 -170°C
Flash point	approx. 350°C
Ignition temperature	>400°C
Relative density	0.91g/cm ³
Solubility in water	Does not dissolve
Fiber length	54mm / 38 mm / 24 mm
Fiber amount per 1 kg of the product	110.000 / 157.000 / 250.000
Appearance	Continuously extruded
Tensile strength	550-650 MPa
Application	
Consumption	<p>Number of single fibers in 1 kg of the product:</p> <ul style="list-style-type: none"> 95.000 of 54 mm 133.000 of 38 mm 212.000 of 24 mm
Substrate preparation	<ul style="list-style-type: none"> <u>concrete class</u>: minimum C20/25 <u>Type of concrete</u>: Each combination, including with slag and ash type filler <u>Cumulated volume</u>: Each cumulated volume as long as the cumulated volume if it is more than 25% of the section thickness. POLYEX MESH 2000 fibers are characterized by the possibility of high dosage of the concrete. Fibers dosage from 1.0 to 12.0 kg/m³ of the concrete, depending on the required parameters. Standard dosage 1.5 – 3.0 kg/m³. The fibers are added to concrete in concrete mixing plant, within the process of all raw materials dosing or to concrete mixing machine at the construction site.
Comments and recommendations	
Health and safety conditions	Under normal storage and use the fiber is chemically stable. During a prolonged heating above 300C dangerous decomposition products may be released. Inhalation of vapors in their high concentrations can cause respiratory tract irritation. I case of its application, use personal protective equipment as gloves and goggles. Detailed guidance on safety, health and hazardous properties of the material are included in the Material Safety Data Sheet - supplied by the manufacturer upon request.

Final remarks	<p>The included technical specifications are based on laboratory tests. Actual measurements results may vary from the enclosed ones, due to circumstances beyond the control of Sicon LTD. All information is provided in good faith, taking into account the current state of the art and the experience gained. The product documentation provides for general information applicable under certain conditions. It is recommended that before using the product on a large scale, the purchaser tests it under specific construction environment conditions. The supplier has no control over the use, methods of application and execution conditions occurring at the construction site, and therefore no responsibility of the supplier for the final effect of the application may arise from these instructions. Recommendations of Sicon partners that differ from the information included in the Safety Data Sheet shall apply only in the case of their written confirmation.</p> <p>Date of issue: 01/2016 All previously issued Sicon Polyex Mesh 2000 safety data sheets shall expire on the date of issue of this sheet.</p>
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