

PRODUCT DATA SHEET

Sika® Fibermesh-650 S

Macro-Synthetic Fibers

PRODUCT DESCRIPTION

Sika® Fibermesh-650 S is an engineered graded macro-synthetic fiber featuring e3 patented technology, manufactured to an optimum gradation and oriented to allow greater surface area contact within the concrete, resulting in increased interfacial bonding and flexural toughness. Sika® Fibermesh-650 S is specifically engineered and manufactured in an ISO9001 certified facility for use as concrete reinforcement. Sika® Fibermesh-650 S was formerly called Fibermesh 650S and SikaFiber Force 650S.

e3 Technology

A well graded aggregate will enhance concrete, Sika® Fibermesh-650 S with e3 technology is a blend of graded fibers designed to enhance the distribution and performance of fiber reinforcement.

USES

- Sprayed Concrete
- External roads / Pavements
- Airport pavements
- Precast
- Slope stabilisation

PRODUCT INFORMATION

Packaging

Sika® Fibermesh-650 S are pucked and packaged either in 1 kg "toss-in" degradable bags and then into cartons, or pucked fibers are available without bags that are packaged directly into cartons. All cartons are then palletized for shipping.

CHARACTERISTICS / ADVANTAGES

- Graded macro-synthetic fiber for concrete reinforcement
- Greater surface area provides increased flexural toughness (residual strength) equivalent to steel.
- Increases concrete durability
- Inhibits plastic shrinkage and settlement cracking
- Pumpable reinforcement with reduced wear on pumps and hoses
- Simplified logistics
- Economical alternative system to steel mesh and/or steel fibers
- Rustproof
- Alkali proof
- Always positioned in compliance with codes
- Safer and easier to use than traditional reinforcement
- Reducing embodied carbon through the replacement of convention steel reinforcement with synthetic structural fibers.

APPROVALS / STANDARDS

- Complies with European Standard EN 14889-2:2006 Fibres for Concrete Parts 2 and carries CE marking
- ISO 9001 Quality Assured
- Complies with ASTM C1116 / C1116M Type III and ASTM D7508 / D7508M

Shelf Life	5 years from date of production if stored properly in undamaged, unopened, original sealed packaging.
Storage Conditions	Store materials in a cool dry place. Do not store in direct sunlight.
Dimensions	Fiber Length: Graded
Melting Point	162°C (324°F)
Ignition Temperature	593°C (1100°F)

TECHNICAL INFORMATION

Tensile Strength	89 ksi (613 MPa)
Resistance to Alkalinity	Alkali Proof

APPLICATION INFORMATION

Recommended Dosage	The application rate for Sika® Fibermesh-650 S macro-synthetic fibers will vary depending on the application, mix design and toughness requirements of each particular project. Typically dosage will fall in the range of 5 to 15 pounds per cubic yard (3.0 to 8.0 kg per cubic metre). For specific performance and dosage recommendations, contact your local Sika representative.
Compatibility	Sika® Fibermesh-650 S fibers are compatible with all concrete admixtures and performance enhancing chemicals.
Mixing	<p>Sika® Fibermesh-650 S in a dispersible bag can be added directly to the concrete mixing system after the batching of the ingredients and mixed for 4 to 5 minutes or 70 revolutions. The addition of Sika® Fibermesh-650 S at the recommended dosage rates may decrease the slump; however, additional water should not be added. Only a water reducing or high range water reducing admixture should be used to adjust concrete to the desired workability.</p> <p>Application: The addition of Sika® Fibermesh-650 S 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>Tooling & Finishing: Sika® Fibermesh-650 S can be used in power/hand troweled concrete 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 macro synthetic fiber to insure fiber is not elevated at the surface</p>

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment,

temperature, application methods, test methods, actual site conditions and curing conditions.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

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

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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 the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **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**

Sika Corporation

201 Polito Avenue
Lyndhurst, NJ 07071
Phone: +1-800-933-7452
Fax: +1-201-933-6225
usa.sika.com

Sika Mexicana S.A. de C.V.

Carretera Libre Celaya Km. 8.5
Fracc. Industrial Balvanera
Corregidora, Queretaro
C.P. 76920
Phone: 52 442 2385800
Fax: 52 442 2250537



Product Data Sheet

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