

PRODUCT DATA SHEET

Sika® Fibermesh®-650

Macro-Synthetic Fiber

PRODUCT DESCRIPTION

Sika® Fibermesh®-650 is a graded macro synthetic reinforcing fiber complying with ASTM C 1116, Type III. Sika® Fibermesh®-650 is 100% virgin copolymer fiber designed to provide a uniform three dimensional reinforcement system in the concrete mix. Specifically engineered and manufactured in an ISO 9001 certified manufacturing facility. Sika® Fibermesh®-650 previously Fibermesh 650 or SikaFiber Force 650.

USES

Sika® Fibermesh®-650 can be successfully used as a safe and simple alternative to wire mesh and rebar. Due to its mechanical properties Sika® Fibermesh®-650 is recommended for use in following applications:

- All types of slab-on-ground
- Extending joints
- Pavements
- Composite metal deck
- Mass concrete
- Bridge decks
- Sidewalks
- Overlays
- Precast

CHARACTERISTICS / ADVANTAGES

- Uniquely graded fiber design to minimize voids in the concrete matrix.
- Cost-effective, three-dimensional reinforcement alternative to secondary wire mesh or rebar, and steel fibers.
- Can be utilized to reduce rebar or wire mesh.
- Increased safety on job site; remove lifting of reinforcement, bending to tie, and tripping hazard.

- Reduction in construction time. No cutting, placing, tying, and charring required
- Reducing embodied carbon through the replacement of convention steel reinforcement with synthetic structural fibers.
- Increase ductility, flexural toughness and post first crack reinforcement of concrete.
- Increased durability due to high chemical resistance and corrosion free.
- Inhibits plastic shrinkage and settlement cracking.
- Improves impact, shatter, and abrasion resistance of concrete.
- Reduces permeability.
- Pumpable reinforcement with reduced wear on pumps and hoses.
- Toss in degradable bags make it easy to batch.

ENVIRONMENTAL INFORMATION

Lowers carbon footprint through the removal of rebar or wire mesh reinforcing which has a higher GWP.

A Type III Product-Specific Environmental Product Declaration (EPD) and a Manufacturer Inventory are available for Sika® Fibermesh®-650. For further information, please visit:

<https://usa.sika.com/en/sustainability.html>

APPROVALS / STANDARDS

- Sika® Fibermesh®-650 is UL/ULc certified and approved for usage in all D700, D800 and D900 series decks as an alternate to welded wire fabric.
- Sika® Fibermesh®-650 complies with European Standard EN 14889-2 Fibres for Concrete Part 2: Class II and carries the CE marking.
- Complies with ASTM C1116/C1116M, Type III fiber reinforced concrete and ASTM D7508/D7508M.

PRODUCT INFORMATION

Fiber Volume Content	90,000 fibers/lb
Packaging	Sika® Fibermesh®-650 can be ordered as pucked or lose. The fibers are placed various dosages of "toss-in" degradable bags. The bags are packed into cartons and palletized.
Shelf Life	If stored in dry conditions shelf life is 5 years.
Storage Conditions	Sika® Fibermesh®-650 should be stored in a cool dry warehouse. Protect product from the rain and direct sunlight.
Fiber Type	monofilament macro synthetic fiber
Dimensions	Length: Graded 1.5" & 1.75" (38 & 44mm). Also available in single cut length 1.5" (38mm) Diameter: Graded 0.0165 & 0.0177" (0.42 & 0.45mm). Aspect Ratio: Varies from 76 to 105
Density	0.91
Melting Point	324 °F (162 °C)

TECHNICAL INFORMATION

Resistance to Alkalinity	Excellent
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APPLICATION INFORMATION

Recommended Dosage	The dosage of the Sika® Fibermesh®-650 will vary according to the type of application and the performance requirements of the project. Standard recommended dosage rate of Sika® Fibermesh®-650 is between 3–7.5 lbs/cu. yd. (1.8–4.45 kg/m ³) of concrete. Dosages outside the recommended dosage range can be used to meet project specific requirements. If this is the case please contact your Sika representative for technical support.
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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 PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/en/group/SikaCorp/termsandconditions.html> or by calling 1-800-933-7452.

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Product Data Sheet
Sika® Fibermesh®-650
June 2024, Version 04.01
021408021000000118

SikaFibermesh-650-en-US-(06-2024)-4-1.pdf

