

Mapefibre Steel 50x1.00 M

Steel Fibers for Concrete Reinforcement

FOR PROFESSIONAL USE ONLY

DESCRIPTION

Mapefibre Steel 50x1.00 M hook-ended steel fibers are ASTM A820, Type 1. They are specifically designed to be used in various concrete elements as an alternative to conventional steel reinforcement. At 50 mm in length and 1 mm in diameter, *Mapefibre Steel 50x1.00 M* steel fibers feature an omega-shaped profile and are designed to improve the performance characteristics of conventional and precast concrete and shotcrete. They are used to obtain concrete with high ductility and to limit cracking, due to the hook-ended shape allowing for maximum anchorage into the concrete matrix.

WHERE TO USE

Mapefibre Steel 50x1.00 M may be used in different sectors in the civil and industrial field, including:

- Fiber-reinforced industrial flooring.
- Concrete elements for foundations, bases, floor slabs and screeds in residential environments.
- Port and airport concrete slabs.
- Precast concrete elements such as panels, reinforced concrete pipes and other high-performance concrete elements.
- Precast concrete tunnel segments.

FEATURES AND BENEFITS

- Provide 3D reinforcement
- Improvement in post-crack performance
- Higher ductility of the concrete
- Improved impact resistance
- Require less labor vs. traditional reinforcement
- Expedite projects, as the step of reinforcement placement can be eliminated

MIXING

Mapecibre Steel 50x1.00 M can be added to concrete directly in the plant mixer or directly into the concrete truck.

COMPATIBILITY WITH OTHER PRODUCTS

Mapecibre Steel 50x1.00 M steel fibers are compatible with all MAPEI products for preparing quality concrete. MAPEI Technical Services is available to help evaluate which admixture or admixture packages are most suitable for any specific need.

DOSAGE

Mapecibre Steel 50x1.00 M may be added to concrete with a dosage of up to 90 lbs. per cu. yd. (44.6 kg per m³), depending on the project and performance required. MAPEI Technical Services is available to provide technical support and calculations to help determine the correct dosage.

PACKAGING

Mapecibre Steel 50x1.00 M steel fibers are supplied in 44-lb. (20-kg) non-waterproof paper bags on 2,200-lb. (1 000-kg) pallets.

STORAGE

Mapecibre Steel 50x1.00 M can be stored for 2 years in the original packaging away from rain and humidity.

Technical Data

Material	Steel fibers for concrete
Diameter	0.0394" (1 mm)
Length	1.968" (50 mm)
Aspect ratio	49.95
Shape	Hook-ended, omega-shaped
Tensile strength	8.48 psi (1 230 MPa)
Modulus of elasticity	1,310 psi (190 000 MPa)

ADDITIONAL INFORMATION

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA).

WARNING

The test results shown in the TECHNICAL DATA table were obtained in compliance with test methods and curing cycles, if applicable, defined in the industry standards referenced on the Technical Data Sheet. Please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement nor replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

CONTACT INFORMATION

MAPEI Headquarters of North America

1144 East Newport Center Drive
Deerfield Beach, Florida 33442
1-888-US-MAPEI (1-888-876-2734) / (954) 246-8888

Technical Services

U.S. and Puerto Rico:
Flooring: 1-800-992-6273
Concrete and heavy construction: 1-888-365-0614
Canada:
1-800-361-9309

Customer Service

1-800-42-MAPEI (1-800-426-2734)

Edition Date: December 3, 2025 MK 09637 (25-2904)

For the most current product data and BEST-BACKEDSM warranty information,
visit www.mapei.com.
All Rights Reserved. © 2025 MAPEI Corporation.

