



AR GLASS

## Description

FORTA<sup>®</sup> Surface-EXT™ is an alkali and acid resistant glass fiber specifically designed to extend the life of micro surfacing and slurry seal paving applications. Surface-EXT improves flexibility and long-term durability. Surface-EXT is extremely easy to use and has a specific gravity similar to that of the aggregate, which allows it to disperse completely and evenly into the slurry mix. The glass fiber can be used at any dosage to suit the end user's project needs. Surface-EXT does not increase the water demand of the mix.

## Reinforcement Objective

To increase the durability and life of micro surfacing and slurry seal pavement preservation by forming a bonding matrix with the asphalt and aggregate which allows energy to disperse more evenly in the cured mixture.

## Physical Properties

<b>Tensile Strength</b>	250 ksi (1,700 MPa)
<b>Modulus of Elasticity</b>	10,000 ksi (72 GPa)
<b>Softening Point</b>	1,580°F (860°C)
<b>Density</b>	4,517 lb/cu yd (2,680 kg/cu m)
<b>Material</b>	Alkali Resistant Glass*
<b>Form</b>	1/4 in, Pre-Chopped**
<b>Chemical Resistance</b>	Very High

\* Our fibers are manufactured with high Zirconium content in compliance with ASTM C1666 / C1666M-07 and EN 15422, and under the recommendation of PCI and GRCA.

\*\* Also available as roving bobbins which can easily be chopped-on-demand with a FORTA<sup>®</sup> patented fiber dispenser. Please speak with your FORTA representative for details.

## Compliance & Certification

- ASTM C1666 / C1666M-07 Standard Specification for Alkali Resistant (AR) Glass Fiber for GFRC and Fiber-Reinforced Concrete & Cement
- European Directive 99/45/EC, 67/548/EEC, and their latest amendment
- Manufactured under a Quality Management System approved to ISO 9001
- The actual performance of Surface-EXT fibers is subject of independent assessment and approval in Germany (Zulassung N° Z-3.72.1731)

## Applications

Surface-EXT is used in micro surfacing and slurry seal paving applications. Surface-EXT has been designed to arrange into a matrix in the mixture which helps link the asphalt to the aggregate giving the cured mixture additional durability. It assures excellent workability and reliable long term performance. Use of Surface-EXT typically does not require a change to the mix design.

## Performance Benefits

- Alkali and acid resistant
- Improves long term durability
- Increases pavement flexibility
- Excellent dispersion
- Excellent workability
- No increase in water demand
- Excellent mechanical performance
- Mitigates reflective cracking
- Suitable for all slurry surfacing applications

## Dispersion

Surface-EXT fibers are incorporated directly into the micro surfacing or slurry seal mixing system with the specially designed FORTA Ranger dispensing system. Use of the Ranger system assures trouble-free and equal dispersion of the fiber in the mix. The recommended dosage is 0.15% to 0.4% of the dry aggregate weight; however, other dosing amounts have been used for specific mix designs.

## Packaging

Surface-EXT pre-chopped fibers are supplied in convenient 26.5 lb (12 kg) bags.\*

\* Also available as roving bobbins which can easily be chopped-on-demand with a FORTA<sup>®</sup> patented fiber dispenser. Please speak with your FORTA representative for details.

## Innovation

FORTA Corporation is dedicated to research and development and has spent years conducting scores of test projects to develop our unique fiber system. Not only do we manufacture fibers, but have also created a proven comprehensive process to ensure successful product performance.

## Limited Warranty

FORTA<sup>®</sup> Products are warranted to be free of defects in material and will meet all published physical properties as set forth herein. EXCEPT FOR THE EXPRESS LIMITED WARRANTY SET FORTH HEREIN, NEITHER FORTA NOR ANY PERSON ON FORTA'S BEHALF HAS MADE OR MAKES ANY EXPRESS OR IMPLIED REPRESENTATION OR WARRANTY WHATSOEVER, EITHER ORAL OR WRITTEN, INCLUDING ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, OR NON-INFRINGEMENT, WHETHER ARISING BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE, ALL OF WHICH ARE EXPRESSLY DISCLAIMED.

The exclusive remedy for defective product is outlined in FORTA's Standard Terms and Conditions of Sale, available upon request. CONSEQUENTIAL DAMAGES ARE SPECIFICALLY EXCLUDED.

FORTA reserves the right to change the features and specifications of its products without prior notice.

*Surface-EXT™ can be purchased from FORTA or an authorized FORTA<sup>®</sup> products distributor, dealer or representative.*

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