



Pavement Reinforcement Grid

The
Strategic



Saint-Gobain Technical Fabrics World Class Capabilities And World Wide Reach

Saint-Gobain Technical Fabrics (SGTF) is a global company within the Reinforcement Branch of Compagnie de Saint-Gobain. We are an industry leader in the manufacture and distribution of a wide range of reinforcement fabrics, building on more than 100 years of experience. We offer a diverse selection of products, including some of the world's best known reinforcement brand names.

With worldwide manufacturing plants, we ensure reliability, quality and cost-effective material supply. Our strategically located research facilities and globally placed regional sales offices promise you world class service. We are committed to innovative solutions to your challenges and development of breakthrough products.

Saint-Gobain Technical Fabrics is truly your Global Resource for Reinforcement Fabrics.

Asphalt Concrete Mix Considerations

Asphalt concrete (AC) mix varies by country and by region. GlasGrid has been designed for use with conventional asphalt mixes that are placed with proper compaction, to at least 97% of bulk relative density or at least 93% of maximum relative density. AC must meet the local surface course hot mix specification for heavy traffic (high AADT) conditions, with sufficient stability and durability to carry traffic loadings and withstand temperature changes. The AC mix must be designed according to: a) Marshall method (Asphalt Institute Manual MS2), to achieve stability of at least 8000 Newtons (1800 lbs); or, b) Superpave method (Asphalt Institute Manual SP2) for surface course hot mix asphalt subject to heavy traffic conditions, incorporating aggregates and asphalt cement. When using any specialized mixes or additives in AC mixes with GlasGrid, please contact Saint-Gobain Technical Fabrics for detailed technical guidance. *Note: For complete installation directions, please consult your Saint-Gobain Technical Fabrics representative.*

Saint-Gobain Technical Fabrics has no control over installation design, installation workmanship, accessory materials, or conditions of application. Saint-Gobain Technical Fabrics does not warrant, with respect to the installation or use of the product or of any final product into which the product may be incorporated by the purchaser and/or user, the performance or results of any such installation or use. THIS WARRANTY DISCLAIMER INCLUDES ALL IMPLIED WARRANTIES, STATUTORY OR OTHERWISE, INCLUDING THE WARRANTY OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE. The purchaser and/or user should perform its own tests to determine the suitability and fitness of the product for the particular purpose desired in any given situation.



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GlasGrid is manufactured at an ISO 9001-2000 registered facility of Saint-Gobain Technical Fabrics

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U.S. Patent 4699542/4957390/5110627/5393559. Canadian Patent 1240873. European Patent EP0318707. Japanese Patent 2611064.

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Strategic Plan: Use GlasGrid Today, Save Money Tomorrow



*Proven effective
6 years later*



Before

Save money
down the road

The Strategic Choice

Save Money Down the Road With **GLASGRID**

Typically, pavement cracking is caused by traffic loading, age hardening and temperature cycling. **GlasGrid® Pavement Reinforcement Grid** helps arrest this cycle of deterioration. It's the hidden strength in the road, reducing reflective cracking for years to come.

Why GlasGrid?

- GlasGrid paves the way to lower maintenance costs.
- Repair severely cracked roads and postpone complete reconstruction.
- Specify GlasGrid for new construction, and dramatically extend the life of roads and runways.

How GlasGrid Works

- Reinforces asphalt concrete overlays in pavement construction.
- GlasGrid is “sandwiched” between leveling and surface course of asphalt.
- The fiber glass grid is designed to turn crack stresses horizontally and dissipate the stress.
- Helps retard cracks from reflecting through a new asphalt overlay to the surface.



Engineered for Performance

- Superb product engineering in the configuration of fiber glass strands.
- The combination of high tensile strength and high modulus of elasticity at low elongation makes GlasGrid, pound for pound, stronger than steel.

Tested in the Lab, Proven in the Field

- In independent lab tests, GlasGrid has been proven to extend pavement life by approximately 84%.
- Shown to reduce both thermal and stress-related reflective cracking.
- Case studies show positive results in the field as reported by road and airport engineers from around the world.





Lane Widening

Airport Aprons

Runways

Bridges

Intersections

Urban Roads

County Roads

Freeways

Parking Lots



The GlasGrid Promise

*Easy installation,
followed by years
of extended pavement life.*



It's Simple to Install

1. Prepare the Surface

- Provide a structurally adequate road surface. Perform any remedial repairs. Seal cracks, fill potholes.
- If the surface has been milled, apply a leveling course.
- For best results, broom and clean the pavement surface.
- GlasGrid has a unique self-adhesive coating so a tack coat is optional.

2. Install GlasGrid

- Ensure the pavement surface is dry.
- Install using a GlasGrid fabric placement tractor.
- GlasGrid placement tractors promote effective bonding between GlasGrid and the pavement surface.

3. Pave

- The surface course of asphalt can be placed immediately after the GlasGrid is installed. There are no disruptions or delays to normal paving operations.
- Minimum 40mm (1 1/2") compacted overlay is required.

NOTE: For complete installation directions, please consult your Saint-Gobain Technical Fabrics representative.



Results From the Field:

GlasGrid Paves the Way to Lower Maintenance Costs



GlasGrid Delivers Long-Term Performance

Severe longitudinal and transverse cracking had long been a problem on U.S. Route 1. The Maine Department of Transportation carried out an experimental resurfacing of Route 1. Two pavement reinforcement products were tested, including GlasGrid 8501, against two untreated control sections. Over five years, reflective cracking was significantly lower in the GlasGrid section. And the installed GlasGrid price was one-third the price of the other product.



Utilized in Turnpike Widening

The Ohio Turnpike is a 241-mile highway that spans the state of Ohio. The Turnpike Authority has used GlasGrid in a variety of applications during its \$600 million Third Lane Expansion Project. This project includes the addition of 320 lane miles of new pavement. Successful applications of GlasGrid 8502 include its

placement over longitudinal joints, full width shoulder reinforcement and joint reinforcement in realignment areas.



Specified for Airport Upgrade

Recently, New Orleans International Airport (MSY) has performed a major upgrade to its facilities including terminals, access roads and runways and taxiways. GlasGrid 8502 was utilized in repaving of the taxiways, specifically to reinforce the asphalt pavement over the existing portland cement joints. Burney Orgeron of

Industrial Fabrics says, “We consider GlasGrid to be essential to the long-term success. On other projects, we have observed that it is effective in preventing reflective cracking, and we believe it will be effective in this application at the New Orleans Airport.”



A Fast, Effective Solution for a Busy Road

Nevada Highway 50 and Highway 95 intersect in Fallon (east of Reno). Reflective cracking was visually apparent on both heavily traveled roads. When repaving commenced, GlasGrid 8501 self-adhesive reinforcement grid was specified and applied with minimum traffic disruption. This solution was chosen for its high

modulus, tensile strength, and low elongation properties. Performance has met expectations. The Nevada D.O.T. continues to specify this pavement reinforcement grid in order to provide restraint to potential crack reflection.

“On the projects where we have specified GlasGrid, it’s my opinion that the alternative would have been complete reconstruction, which would have been much more costly.”

Don Yager, Yager Consultants, Toledo, Ohio.

GlasGrid Family Of Products

GlasGrid 8501 Complete Road System

- Full-width reinforcement of roadways.
- Tensile strength
100 kN/m x 100 kN/m
(560 lb/in x 560 lb/in)

GlasGrid 8502 Detail Repair System

- To reinforce concrete joints, trench repairs, construction joints for road widening, and major intermittent transverse cracks.
- Tensile strength
200 kN/m x 100 kN/m
(1120 lb/in x 560 lb/in)

Custom Products

We can also supply customized reinforcement products to meet your unique specifications such as 8511, 8512, CG50 and CG100 and 8550.

Notes: GlasGrid is tested in accordance with ASTM D6637 Single Rib Tensile Test method.

GlasGrid is recyclable with standard paving recycling methods.