



Comprogrid Pavement Reinforcement and Moisture Barrier System

The GlasGrid® CG System

The GlasGrid CG products are composite materials consisting of a fiberglass grid and a non-woven paving fabric. Building on the success of the GlasGrid System, the CG System answers a growing need for a proven pavement reinforcement material that also acts as a moisture barrier.

Easy to Install

The GlasGrid CG System is engineered for easy installation with commonly used paving equipment and techniques. Contact your Tensar International Corporation representative for more detailed installation procedures.

Applications

The GlasGrid CG system has two distinct uses. For new construction, it can be installed as a preventative maintenance measure. Alternatively, for pavement rehabilitation projects, the GlasGrid CG products can delay the reoccurrence of reflective crack-related problems. Both CG50 and CG100 can be placed on structurally sound flexible (asphalt) or rigid (concrete) pavements, including cement-stabilized bases, followed by an asphalt concrete overlay.

Both products are suitable for new construction and for rehabilitation, including trench repairs and construction joints for road widening projects. Applications include everything from major highways to municipal intersections, bridges, parking areas, commercial and military airfields, and a variety of recreational sites.

Features & Benefits

- Non-woven fabric layer acts as a moisture barrier thereby protecting the lower layers in the pavement structure.
- Stiff fiberglass grid resists the upward migration of reflective cracks.
- Excellent creep resistance ensures applicability for retarding thermally induced cracking.
- Fast and simple installation procedures ensures that paving delays are avoided.
- Withstands excessive temperatures, thereby avoiding damage by the hot asphalt during paving.



Both products are suitable for construction and rehabilitation.

Reduces Reflective Cracking

CG50 and CG100 products are extensions of the GlasGrid System – a line of high strength, high stiffness, fiberglass meshes that retard the propagation of thermal and traffic-induced cracks reflecting through to the surface of a new asphalt overlay.

Reduces Water Infiltration

Thanks to a non-woven fabric layer, the GlasGrid CG System offers additional pavement protection. Once the non-woven layer has been impregnated with bitumen, it acts as a moisture barrier.



Tack



Apply CG Product with Placement Tractor



or Apply Manually



Pave

Installation Overview

Surface preparations

1. As directed by the Engineer, repair potholes, cracks greater than 6 mm (¼ in. wide) and badly damaged or rough pavement that may require milling or the placement of a leveling course.
2. The pavement must be free of dirt, water, oil and other foreign materials.

Asphalt cement tack coat placement

1. Apply uniformly at a residual rate of 0.9–1.36 litres/m² (0.2–0.3 gal/yd²) using a calibrated distributor truck and make sure that it doesn't fall above or below the application rates cited.
2. The tack coat area must be a minimum of 75 mm (3 in.) wider than the GlasGrid CG composite system.

GlasGrid CG System installation

1. Place the GlasGrid CG material while the tack coat is still tacky/broken. Use a mechanical placement tractor or place manually.
2. Keep the material flat and wrinkle-free. GlasGrid CG System installations may require brooming. For sharp curves, cut the edges of the geocomposite and fold over in the direction of placement of the asphalt overlay.
3. Overlaps must be a minimum of 25 mm (1 in.) to ensure a continuous moisture barrier.

Hot mix overlay

1. The asphalt overlay thickness must be a minimum of 50 mm (2 in.) thick once compacted.
2. The GlasGrid CG material must be paved over on the day of placement.

NOTE: GlasGrid CG50 and CG100 must be used in conjunction with proper civil engineering principles.



The CG System is engineered for easy installation.

MECHANICAL PROPERTIES & PRODUCT DATA (ALL VALUES ARE MINIMUM AVERAGE ROLL VALUES)			
PROPERTY	TEST METHOD	CG50	CG100
Grid		Fiberglass Reinforcement Coated with an Elastomeric Polymer	Fiberglass Reinforcement Coated with an Elastomeric Polymer
Grid Tensile Strength Component Strand Strength	ASTM D 4595	Across Width 50 kN/m (280 lbs/in.) Across Length 50 kN/m (280 lbs/in.)	Across Width 100 kN/m (560 lbs/in.) Across Length 100 kN/m (560 lbs/in.)
Grid – Maximum Elongation at Break	ASTM D 4595	<5%	<5%
Grid – Minimum Melting Point	ASTM D 276	>218°C (425°F)	>218°C (425°F)
Grid Aperture Size (CL to CL)		25 mm x 25 mm (1 in. x 1 in.)	25 mm x 25 mm (1 in. x 1 in.)
Non-Woven Fabric – Polymer		Polypropylene	Polypropylene
Non-Woven Fabric – Weight	ASTM D 3776	122 g/m ² (3.6 oz/yd ²)	122 g/m ² (3.6 oz/yd ²)
Non-Woven Fabric – Grab Tensile Strength	ASTM D 4632	.40 kN (90 lbs)	.40 kN (90 lbs)
Non-Woven Fabric – Maximum Elongation	ASTM D 4632	50%	50%
Non-Woven Fabric – Asphalt Retention		0.9 litres/m ² (0.2 gal/yd ²)	0.9 litres/m ² (0.2 gal/yd ²)
Roll Length		95 m (104 yds)	60 m (66 yds)
Roll Width (not including 75 mm (3 in.) flap)		1.50 m (5 ft)	1.50 m (5 ft)

The GlasGrid® CG System is manufactured at an ISO 9000-2000 standard registered facility of Saint-Gobain Technical Fabrics.



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