

GLASS FIBER GEOGRID (GTF - G) ASPHALT PAVEMENT REINFORCEMENT

The GTF Glass Fiber Geogrid Pavement Reinforcement System is engineered to mitigate reflective cracking and enhance the life of asphalt overlays. Manufactured at GTF Private Limited facility certified under ISO 9001:2015 and compliant with EN 15381:2008 standards, this system integrates high-strength, open glass fiber geogrid with an asphalt compatible polymer coating and self-adhesive backing.

When installed between the asphalt courses, the glass geogrid effectively redirects vertical crack-induced stresses horizontally, dissipating them and thereby preserving the integrity of the pavement structure. The grid's open design promotes aggregate interlock between paving courses, significantly reducing shear potential. The GTF Glass Fiber Geogrid system offers easy installation, postpones the need for complete reconstruction, and contributes to reduced maintenance costs, making it a cost-effective solution for extending the service life of asphalt pavements.

Applications

- Airport runways and aprons.
- Flexible high volume roads.
- Rigid high volume roads.
- Low volume roads.
- Parking lots.
- Surfacing of new asphalt roads pavement.
- Resurfacing of old asphalt pavements to repair rutting or cracking.
- Reinforcement of new asphalt overlays above worn out roads.

- **High Grid Stiffness** : Ensures wrinkle-free installation and direct load transmission, enhancing structural integrity.
- **Low Elongation** : Maintains minimal stretching under load, preserving dimensional stability.
- **Thermal and Chemical Stability** : Resistant to environmental factors, ensuring long-term durability.

BENEFITS:

- Quick and efficient installation.
- High grid stiffness providing a wrinkle free installation.
- Easy cutting.
- Good trafficability (suppliers, trucks, paver).
- Thermal and chemical stability.
- Excellent milling performance.



<u>Properties</u>	<u>Unit</u>	<u>GTF-G01</u>	<u>GTF-G02</u>	<u>GTF-G03</u>
Tensile Strength (MD x CMD)	kN/m (≥)	50 x 50	100 x 100	100 x 200
Tensile Elongation	%	3 (± 1)	3 (± 1)	3 (± 1)
Tensile Resistance @ 2% Strain (MD x XD)	kN/m (>)	35 x 35	75 x 75	75 x 160
Young's Modulus E	MPa (>)	76000	76000	76000
Melting Point of Glass	° C (>)	900	900	900
Melting Point of Coating	° C (>)	250	250	250
Mass per Unit Area	g/m ² (>)	210	415	620
Aperture Size	MM	25 x 25	12.5 x 12.5 25 x 25	12.5 x 12.5 25 x 19
Roll Width	Meter	1.50 / 2.00 / 2.25 / 2.50 / 4.00 / 4.50 / 5.00 / 5.50 / 6.00		
Roll Length	Meter	50 / 75 / 100		
Material		Glassfiber Grid Coated with Asphalt Compatible Polymer.		

- **MD – Machine Direction** • **CMD – Cross Machine Direction**

* Pressure Sensitive Self-Adhesive backing on one side optional as per requirements.

The values given are indicative and correspond to average results obtained in our laboratories and testing institutes. The right is reserved to make changes without notice at any time.

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METHODOLOGY OF INSTALLATION

Road Preparation

Complete all crack sealing, pothole filling, base repairs, leveling course applications, etc.

Road Surface Condition,

Surface must be: • Dry • Clean and dust-free.

The road surface temperature must be between 5°C and 60°C.

On asphalt surfaces less than 24 hours old, the surface temperature must be between 5°C & 46°C. Local guidelines should be followed for paving temperature range.

The use of a tack coat/emulsion is recommended. If a tack coat is specified in tender, it may be applied before or after the installation of Glass Fiber Geogrid, depending on site conditions. In both cases the tack coat must be cured prior to laying the Glass Fiber Geogrid or paving.

Note: it is important to correctly select the most appropriate type of tack coat/emulsion.

Product Preparation

In order to preserve adhesive properties, Glass Fiber Geogrid must be stored inside a dust-free environment and kept dry at the job site. Glass Fiber Geogrid must not be transported or stored at temperatures greater than 82°C.

Important Notes

1. Because Glass fiber is considered a skin irritant, workers should wear gloves while handling Glass Fibre Grid.
2. Glass Fibre Grid can be custom cut to fit around structures by using a sharp utility knife.
3. Glass Fibre Grid must be applied without ripples. Sufficient tension during application will eliminate this problem.
4. Overlap at end of roll joints 75-100mm. Ensure that the overlaps are shingled in the direction of paving.
5. Overlap longitudinal joints 50-75mm.
6. Prior to paving, only construction and emergency vehicles shall be allowed to drive on installed Glass Fibre Grid.
7. Damaged sections shall be removed and patched, taking care to underlap the full roll.
8. All Glass Fibre Grid placed in a day shall be covered with asphalt immediately, within permissible laying temperatures to a minimum compacted thickness of 40 mm.
9. Avoid pushing of the asphalt delivery vehicles with the paver, particularly on uphill gradients.
10. Prevent asphalt delivery vehicles from executing sharp turns, accelerating or braking on the Glass Fibre Grid.

2 Methods for Installation:

A. With Pressure Sensitive Adhesive.

1. Load roll onto front or back of tractor. Always load in such a way that allows the placement of mesh with the self-adhesive side down.
2. Roll only with a rubber-tired roller to activate adhesive. Roller tyres must be kept clean.
3. Apply tack coat/Emulsion as per project requirements and pave once cured.

B. Without Pressure Sensitive Adhesive.

1. Apply the tack coat/emulsion in accordance with project specifications. Once the tack coat/emulsion has cured, proceed with the laying of Glass Grid.
2. Load roll onto front or back of tractor. Always load in such a way that allows the placement of Glass Grid without any wrinkles.
3. Roll only with rubber-tired roller and pave the asphalt layer.

Delivered

10,000k m²