

Fiberglass Geogrid (PicoGrid FG™)

(1) Product Definition



High-Performance Composite

Constructed from high-strength fiberglass yarns, coated with a durable polymer layer to form a rigid grid. It exhibits superior tensile strength and exceptional dimensional stability, remaining resistant to deformation under extreme thermal and mechanical stress in asphalt systems.



Anti-Reflective Crack Control

Acts as a critical stress-absorbing interlayer. It effectively mitigates reflective cracking caused by pavement joint movements and subgrade settlement, blocking crack propagation from the base layer to the asphalt surface and preserving structural integrity.



Enhanced Durability & ROI

Optimizes load distribution across the pavement structure, significantly extending service life by 30-50%. Reduces long-term maintenance costs and minimizes road downtime, making it ideal for heavy-duty highways and rehabilitation projects.

Core Purpose: PicoGrid FG™ is a vital geosynthetic reinforcement solution designed to address the fundamental weaknesses of asphalt pavements, providing a sustainable engineering approach that balances performance, longevity, and economic efficiency for modern infrastructure.

How It Works & Key Benefits

(2) How It Works

1 Stress Absorption Layer

Acts as a flexible buffer between asphalt layers, absorbing dynamic road stresses and reducing structural fatigue caused by repeated loading.

2 Tensile Reinforcement

High-strength polymer grids enhance the pavement's tensile capacity, preventing rutting and deformation under heavy truck loads and extreme temperatures.

3 Crack Propagation Control

Interlocks with asphalt aggregate to physically block upward crack growth from the base layer, preserving surface integrity and reducing water damage.

4 Load & Stress Redistribution

Evenly distributes concentrated wheel loads across a wider area, minimizing localized stress hotspots that lead to potholes and premature failure.

(3) Key Benefits

01. Crack Control

Effectively mitigates reflective and fatigue cracking, the primary cause of pavement degradation in high-traffic zones.

02. High Tensile Strength

Superior load-bearing capacity withstands heavy trucks and repeated stress cycles without structural compromise.

03. Low Elongation

Minimal deformation under load ensures long-term dimensional stability and maintains a smooth, safe driving surface.

04. Extended Pavement Life

Adds 3–5 years to service life, significantly maximizing the ROI of road infrastructure investments and reducing lifecycle costs.

05. Reduced Maintenance

Lowers long-term repair costs and minimizes road closure downtime, improving efficiency for commuters and logistics.

06. Construction Efficiency

Easy to unroll and install with standard paving equipment, streamlining on-site processes and reducing labor time.

(4) Applications



Asphalt Overlay Reinforcement

Distributes stress to prevent reflective cracking, significantly extending the service life of asphalt overlays on flexible and rigid pavements.



Pavement Rehabilitation

Restores structural integrity to aging infrastructure, enhancing load-bearing capacity and reducing costly, frequent repairs.



Highways & Expressways

Engineered for high-traffic corridors, providing superior tensile strength to withstand heavy vehicle fatigue and dynamic loading.



Airport Runways & Taxiways

Meets stringent aviation standards, ensuring durability under repeated aircraft impacts, shear forces, and heavy loads.



Industrial & Logistics Pavements

Supports extreme loads from forklifts, heavy machinery, and container stacking in ports, yards, and distribution centers.

(5) Technical Specifications

Model	Long (kN/m)	Cross (kN/m)	Elong (%)	Grid (mm)	Width (m)
EGA-25-25	25	25	10	25.4×25.4	1-6
EGA-30-30	30	30	10	30×30	1-6
EGA-40-40	40	40	10	40×40	1-6
EGA-50-50	50	50	10	50×50	1-6
EGA-80-80	80	80	8	50×50	1-6
EGA-100-100	100	100	8	50×50	1-6
EGA-50-50-Z	50	50	10	50×50	1-6