

POLYGRIDS®

by



AXION
ADVANCE MATERIALS

Engineered for Strength. Built for Progress

Our Vision

To be a trusted global partner in infrastructure, delivering total solutions that create lasting value through innovation, passion, and inclusiveness.



Product Overview

Axion Advance Materials Pvt. Ltd. (Formerly known as Polyon Textiles Private Limited) manufactures high-performance fiberglass geogrids engineered for reinforcing roads, runways, bridges, and pavements. We provide technologies for infrastructure through advanced geosynthetic products. Using the latest German machinery and deep application expertise, we deliver total solutions from product design to installation support. We are driven by the belief that Passion fuels innovation and Inclusiveness ensures sustainable progress for all.

Standardization and Customisation

Axion Fiberglass Geogrids are specifically designed for Asphalt reinforcement applications. The product is manufactured using high-strength glass fibres with a specially engineered coating, designed to provide high tensile strength, dimensional stability and effective bonding with bituminous layers. Standardized products are based on strength, weight, and rib sizes. Customization in Strength and Rib size are possible as per customer requirement. In case of a water proofing requirement, the Glass grid is laminated with Polypropylene or Polyester-based Non-woven fabric of different weight.

Major Properties of POLYGRIDS®:

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|--|--------------------------|
| a) High Tensile strength | e) Minimal Creep |
| b) Thermal stability | f) Low Elongation |
| c) High shear adhesion | g) Asphalt Compatibility |
| d) Not affected by de-icing salt, petroleum, or bitumen products | |

Reducing the life cycle cost through effective reinforcement

The reinforcement of asphalt pavements can produce a threefold increase in the service life of highway pavements by reducing fatigue, reflective, thermal and settlement cracking. With increased fatigue life & extended maintenance intervals, the "life cycle cost" of a reinforced pavement is less than an unreinforced one

Simple resurfacing is only a temporary fix.

When flexible asphalt pavements are exposed to repeated cyclical loads, rutting, pothole formation & fatigue cracking can occur. With increasing vehicle use and axle loads, this problem may also get worse. Repeated recarpetting of a distressed pavement will only temporarily improve the situation as cracks from the underlying layers soon propagate into the new overlay, causing premature ageing. This reflective cracking can also be a problem when asphalt overlays are placed on to existing concrete pavements



Reinforcement reduces road stress

- Delayed initiation of cracks due to an interlayer. Increased distance between cracks
- Narrow crack width due to excellent stiffness of fiberglass for cracks

Our products for new-builds & overlays

- Our solutions serve:
- Roads
- Airport Runways
- Parking areas
- Pavements
- Bridges/Highways

POLYGRIDS® PT series stands for:

- PT: Physically Tough
- PT: Perfectly Tailored
- PT: Pre-Tested
- PT: Pure Trust

Benefits

- Provides reinforcement & structural stability.
- Significant enhancement of Pavement service life with Fatigue improvement factor for existing & new pavement
- Reduces traffic induced reflective cracking
- Reduces rutting in bituminous layers.
- Reduces maintenance & improves life cycle cost.
- Environmental friendly
- Easy to handle & install.

For installation please
contact our technical
team to assist you.

Let's Connect



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