

TE-FGC10

FIBERGLASS GEOGRID COMPOSITE SYSTEM



Titan's TE-FGC Fiberglass Geogrid Composite System is a bi-axial geogrid bonded to a needle punched non-woven geotextile. It is specifically designed for asphalt reinforcement with an additional moisture proofing benefit. Its composite characteristic provides a continuous non-deforming water resistant barrier. The geogrid is polymer coated which ensures proper adhesion to the asphalt layers over the tack coat surface, and further optimizes the chemical compatibility between the fiberglass reinforcement and the pavement overlay to create a solid bond of the asphalt layers over the tack coat surface. This bond ensures that the reinforcing grid is in a position to effectively accept and distribute tensile stresses.

This system offers excellent heat resistance, minimal shrinkage at high temperatures, high chemical, physical and biological durability along with optimal elastic modulus and aperture size. It is biologically unaffected by soil micro-organisms, inert to all chemicals normally found in the soil, and formulated to resist ultraviolet degradation.

TESTED PROPERTY	TEST METHOD	UNIT ENGLISH (METRIC)	VALUE ENGLISH (METRIC)	
			MD	XD
Ultimate Tensile Strength ⁽¹⁾	ASTM D 6637	lb/inch (kN/m)	571 (100.0)	571 (100.0)
Tensile Strength at 2% Strain ⁽¹⁾	ASTM D 6637	lb/inch(kN/m)	456 (80.0)	456 (80.0)
Secant Stiffness EA at 2% Strain	ASTM D 6637	lb/inch (kN/m)	22,847 (4,000.0)	22,847 (4,000.0)
Coating			Polymeric	
Elongation at Break ⁽²⁾	ASTM D-6637	%	<3	<3
Optimum Elasticity Modulus ⁽²⁾		psi (mPA)	10.6 x 10 ⁶ (73,000)	
Melting Point Coating	ASTM D 276	Degrees C	> 752 (>400)	
Melting Point Glass	ASTM D 338	Degrees C	> 820	
Asphalt Retention	ASTM D 6140	gal/yd ² (l/m ²)	0.3 (1.35)	
Aperture Size	Nominal	inch (mm)	0.5 (12.7)	0.5 (12.7)
Mass/Unit Area ⁽²⁾	ASTM D 5261	oz/yd ² (g/m ²)	12.7 (420)	
TYPICAL ROLL DIMENSIONS				
Roll Width ⁽³⁾⁽⁴⁾	Minimum	ft (m)	5.0 (1.5) or 7.38 (2.25)	
Roll Length ⁽³⁾⁽⁴⁾	Minimum	ft (m)	246.06 (75)	

Notes:

1. MARV – Minimum Average Roll Values
2. Mean
3. Minimum
4. Typical. Standard roll dimensions are shown. The products can be fabricated to custom lengths and widths to meet customer needs

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