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TITAN TE-FG20

BI-AXIAL FIBERGLASS GRID

Titan's TE- range of fiberglass grids are specifically knitted fiber glass grids ideal for asphalt reinforcement. These grids are coated with a bituminous material which ensures proper adhesion to the asphalt layers over the tack-coated surface. Bituminous coating further optimizes the chemical compatibility between the fiber glass reinforcement and the pavement overlay. This bonding ensures that the reinforcing grid is in a position to accept the tensile stresses and to distribute them. The asphalt particles penetrate through the optimal apertures of the Titan fiberglass Grid and achieve high interlock and bonding among asphalt particles and allows two lifts of asphalt to be bonded effectively. The special self-adhesive feature may also eliminate the need for tack-coat and ensures quick installation. The selection of this material is based upon the excellent heat resistance, minimal shrinkage at high temperatures, high chemical and physical durability along with optimal elastic modulus and aperture size. These fiberglass grids are biologically unaffected by soil micro-organisms and are inert to all chemicals normally found in the soil and are also formulated against ultraviolet degradation.

PROPERTIES		TEST METHOD	UNIT MEASURE	TE- FG20
Ultimate Tensile Strength ⁽¹⁾	MD	ASTM D 6637	KN/m (lbs/ft)	105.0 (7,197)
	XD	ASTM D 6637	KN/m (lbs/ft)	205.0 (14,051)
Tensile Strength at 2% strain ⁽¹⁾	MD	ASTM D 6637	KN/m (lbs/ft)	87.0 (5,963)
	XD	ASTM D 6637	KN/m (lbs/ft)	175.0 (11,995)
Shrinkage Properties		SGL - 2012	%	Less than 0.5% at 200° C after 15 minutes
Strain at Ultimate ⁽²⁾	MD	ASTM D 6637	%	<3
	XD	ASTM D 6637	%	<3
Grid Material				Knitted Fiberglass Grid
Coating				Bituminous with self-adhesive feature
Optimum Elasticity Modulus ⁽²⁾			mPA (psi)	> 70,000 (10.15 X10 ⁶)
Melting Point		ASTM D 276	Degrees C	300
Aperture Size (centre to centre of strand)	MD	Nominal	mm (inch)	25.4 (1.0) or 12.7 (0.5)
	XD	Nominal	mm (inch)	25.4 (1.0) or 12.7 (0.5)
Mass/Unit Area ⁽²⁾		ASTM D 5261	g/m ² (oz/y ²)	790 (24)
Roll Width ^{(3) (4)}		Minimum	m (ft)	1.5 (4.92)
Roll Length ^{(3) (4)}		Minimum	m (ft)	50.0 (164.04)

Notes: 1) MARV – Minimum Average Roll Values, (2) Mean (3) Minimum - (4) Typical. Standard roll dimensions are shown. The products may be fabricated to custom widths and lengths to meet customer needs.

TITAN TE-FG20 Typical Applications:

- To control the cracking of airport runways, taxiways, roads, bridges, parking lots, jointed concrete highways etc.
- To increase the fatigue life of Bituminous pavements
- To control rutting of pavements subjected to high trafficking
- Construction of new Highways
- Other maintenance and repair jobs of asphalt pavements

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