Revised 16-Aug-2012

TITAN TE-UX50PET

UNI-AXIAL PET GEOGRID

Titan™ **TE-UX series** coated Polyester (PET) geogrids are specifically designed for improved performance in soil reinforcement applications where strength develops uni-axially. **TE-UX series** geogrids are manufactured with high molecular weight, high tenacity polyester yarns by precision knitting process. The Titan polyester geogrids is dimensionally stable with uniform network of apertures providing significant tensile reinforcement capacity in two principal directions. The Titan UX Polyester geogrid is engineered to be mechanically and chemically stable, in both harsh construction installation phase and in aggressive soil environments (pH level 3.0 – 12.0). Titan UX Polyester geogrids are biologically unaffected by soil micro –organisms. A black PVC saturation coating provides further chemical, mechanical, as well as ultraviolet protection.

INDEX PROPERTIES		TEST METHOD	UNIT MEASURE	TE-UX50PET
Ultimate Tensile Strength (1)	MD	ASTM D 6637	KN/m (lbs/ft)	100.0 (6,854)
Tensile Strength at 5% strain (1)	MD	ASTM D 6637	KN/m (lbs/ft)	40.0 (2,742)
Strain at Ultimate (2)	MD	ASTM D 6637	%	<13
LONG TERM DESIGN PROPERTIES				
Creep Reduced Strength (1)	MD	ASTM D 5262	KN/m (lbs/ft)	63.29 (4,338)
Long Term Design Strength (1) (3) (sand, silt and clay)	MD	GR1-GG4b	KN/m (lbs/ft)	54.79 (3,756)
Molecular weight (Min)		GR1-GG8	g/mol	31,000
Carboxyl End Group- CEG Count (Max)		GR1-GG7	mMol/Kg	25
PHYSICAL PROPERTIES				
Roll Width (4)		Minimum	ft (m)	8.20 (2.5) 16.40 (5.0)
Roll Length(4)		Minimum	ft (m)	164.04 (50.0)

Notes : *(1) Minimum Average Roll Values (MARV) Values- calculated as(Mean minus 2X standard deviation) (2) Average, (3) LTDS or Tal= Tult/ (RFcreep X RF installation damage X RF durability) for sand, silt and clay), soil Dmax ≤ 25mm, D_{50} < 0.2mm . Reduction factor due to installation damage for other soil types is available on request. (4) Typical- Standard roll lengths are shown; the products may be fabricated to custom lengths to suit the contractor's requirements*

Titan TE UX50PET Typical Applications:

- Steep Slope reinforcement
- Retaining wall reinforcement
- Bridge abutments
- Gabion retaining walls
- Vegetated retaining walls
- Landfill expansion projects
- Railway embankments
- Veneer Reinforcement
- Earth Bunds around oil Tanks

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