TERRE ARMEE

Soil Reinforcement

ArmaGrid – UX PET

COATED POLYESTER UNIAXIAL GEOGRIDS

Foundation Improvement

ArmaGrid – UX_{PET}

ArmaGrid – UX_{PET} is a knitted polyester Geogrid providing tensile reinforcement capacity in one direction. ArmaGrid – UX_{PET} is best suited for demanding soil reinforcement applications.

Applications

- **Steep Slopes**: Used as soil reinforcement for reinforced soil steep slopes and embankments.
- **Basal Reinforcement**: ArmaGrid – UX_{PET} improves the stability of soft sub-soils by interacting with engineered fill and providing a strong mattress foundation for embankments and platforms.
- **Foundation Improvement**: ArmaGrid – UX_{PET} is used to support shallow structural foundations, by improving stability, enhancing load distribution and reducing differential settlement.

Technical Parameters

Properties	Test Method	Units	AG-UX_{PET} 40	AG-UX_{PET} 60	AG-UX_{PET} 80	AG-UX_{PET} 100	AG-UX_{PET} 120	AG-UX_{PET} 150	AG-UX_{PET} 180	AG-UX_{PET} 200	AG-UX_{PET} 250	AG-UX_{PET} 300
			Minimum Average Roll Value (MARV)[i]									
Physical Properties												
Material			Polyester									
Mechanical Properties												
Ultimate Tensile Strength in Machine Direction	ASTM D 6637B	kN/m	40	60	80	100	120	150	180	200	250	300
UltimateTensile Strength in Cross Machine Direction		kN/m	20	20	30	30	30	30	30	30	30	30
Elongation at Designated Strength (±2%)		%	10	10	10	10	10	10	10	11	11	11
Tensile Strength at 5% Strain (±5%)			20	30	40	50	60	75	81	90	100	120
Creep Reduction Factor (114 Years Design Life)	ASTM D 6637A	at 20°C	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
		at 30°C	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44	1.44
Partial Factor - Installation Damage	ASTM D 5818	Particle size < 5mm (Silty Sand)	1.10	1.10	1.02	1.02	1.02	1.02	1.02	1.06	1.06	1.06
		Particle size < 35mm (Gravely Sand)	1.12	1.12	1.06	1.06	1.04	1.04	1.04	1.10	1.10	1.10
		Particle size < 125mm (Sandy Gravel)	1.19	1.19	1.16	1.16	1.11	1.11	1.11	1.10	1.10	1.10
Partial Factor - Environmental Effects	GRI-GG7, GRI-GG8 Environment	4 < pH < 8	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Molecular Properties												
Molecular Weight (GRI GG8)		g/mol	minimum 25,000									
Carboxyl End Group (CEG) (GRI GG7)		mmol/kg	maximun 30									
Standard Packaging												
Roll Width[ii]		m	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Roll Length[ii]		m	100	100	100	100	100	100	100	100	100	100
Roll Area[ii]		m^2	380	380	380	380	380	380	380	380	380	380
Weight Per Roll[iii]		kg	90.5	112.9	138.4	157.8	182.1	199.2	232.6	246.7	287	315

[i] All the values mentioned are of minimum average roll values (MARV).
[ii] These values are subject to ±1% variation
[iii] Other roll sizes available

NOTES
A. All prescribed values are minimum unless otherwise mentioned and tested in GAI-LAP accredited laboratories.
B. These properties may change at the time of handling, storage and shipping.
C. Roll weights are average values including shipping cores. Actual roll weight may vary.
D. Customized rolls with varying lengths or master rolls can be manufactured.
E. The above values are subject to change as per discretion of the company.

Local Contact: .....

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