



GEOQUEST



ArmaGrid – UX_{PET}

COATED POLYESTER UNIAXIAL GEOGRIDS



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	
Ultimate Tensile 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	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 < 10mm (Silty Sand)	1.10	1.10	1.02	1.02	1.02	1.06	1.06	1.06	1.06	1.06	
		Particle size < 19mm (Gravelly Sand)	1.12	1.12	1.06	1.06	1.04	1.10	1.10	1.10	1.10	1.10	
		Particle size < 75mm (Sandy Gravel)	1.19	1.19	1.16	1.16	1.11	1.11	1.11	1.11	1.11	1.11	
Partial Factor - Environmental Effects	GRI-GG7, GRI-GG8 Environment	4 < pH < 9	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	
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

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

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