

TerraGrid® U-500

Product Data Sheet

High molecular weight, high-tenacity multifilament polyester yarns comprise the tensile load members of the **TerraGrid “U”** series of uniaxial geogrids. These yarns are knitted into a dimensionally stable network then polymeric compound coated to protect against U.V. exposure and harsh installation damage stresses. The specific carboxyl end group and molecular weight yarns provide additional protection from chemical attack when placed within more aggressive soil environments (pH of 3-9). **TerraGrid** knitted uniaxial geogrids are non-biodegradable.

Tensile Properties	Procedure	Symbol	Value-MD ¹ lbs/ft	Value-MD ¹ kN/m
Ultimate Strength ²	ASTM D6637	T _{ult}	6,400	93.4
Creep Limited Strength	ASTM D5262	T _I	4,051	59.1
Reduction Factors			Symbol	Factor
Durability			RF _D	1.10
Creep			RF _{CR}	1.58
Installation Damage				
Soil 3: D ₁₀₀ ≤ 25 mm, D ₅₀ ≤ 0.2; SW, SP, SM, SC			RF _{ID}	1.10
Soil 2: D ₁₀₀ ≤ 25 mm, D ₅₀ ≤ 8 mm; GW, GP, GM, SW, SP, SM, SC			RF _{ID}	1.15
Soil 1: D ₁₀₀ ≤ 50 mm, D ₅₀ ≤ 20 mm; GW, GP, GM, GC			RF _{ID}	1.30
Long Term Design Strength (LTDS or T _{al}) ³			Value-MD ¹ lbs/ft	Value-MD ¹ kN/m
Soil 3: D ₁₀₀ ≤ 25 mm, D ₅₀ ≤ 0.2; SW, SP, SM, SC			3,507	51.2
Soil 2: D ₁₀₀ ≤ 25 mm, D ₅₀ ≤ 8 mm; GW, GP, GM, SW, SP, SM, SC			3,202	46.7
Soil 1: D ₁₀₀ ≤ 50 mm, D ₅₀ ≤ 20 mm; GW, GP, GM, GC			2,833	41.3

Standard Packaging	Width	Length	Area	Weight ⁶	Width	Length	Area	Weight ⁶
		6.0 ft	300 ft	200 yd ²	125 lbs	1.83 m	91.4 m	167.2 m ²
Alternative Packaging	Roll sizes of 6', 12' & 18' widths by custom roll lengths are available. Contact your Hanes Geo Sales Representative for details.							

Footnotes:

- ¹ Machine Direction (MD) strength (uniaxial strength)
- ² Unless denoted otherwise, values represent Minimum Average Roll Values (MARVs) in the machine direction determined in accordance with ASTM D4759-02
- ³ LTDS or T_{al} = T_{ult} / (RF_D × RF_{CR} × RF_{ID})
- ⁴ TerraGrid soil and segmental retaining wall unit interface properties are available upon request.
- ⁵ For permanent walls, the T_{al} needs to be factored for uncertainties; Typically RF uncertainties = 1.5
- ⁶ Roll weight values are an average, including shipping cores. Actual roll weights may vary.

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