

TT 045 Uniaxial Geogrid

TENAX TT RWA are mono-oriented geogrids manufactured from a unique process of extrusion and specially designed for soil retaining wall and slope applications. They are manufactured from high density polyethylene (HDPE) materials and tested to maintain a high tensile modulus, high strength junction as well as increased durability against installation damage.

Typical Applications:

Soil retaining walls, reinforced slopes, landslide repair applications, embankment stabilization, temporary walls

PRODUCT PROPERTIES

Technical Characteristics	Units	MD Values ¹
Tensile Strength @ 5% Strain ²	kN/m (lb/ft)	27 (1,850)
Ultimate Tensile Strength ²	kN/m (lb/ft)	50 (3,425)
Junction Strength ³	kN/m (lb/ft)	36 (2,466)
Flexural Stiffness ⁴	mg-cm	500,000

DURABILITY

Resistance to Long Term Degradation ⁵	%	100
Resistance to UV Degradation ⁶	%	95

LOAD CAPACITY

Maximum Allowable (Design) Strength for 120-year Design Life ⁷	kN/m (lb/ft)	21.2 (1,452)
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RECOMMENDED ALLOWABLE STRENGTH REDUCTION FACTORS

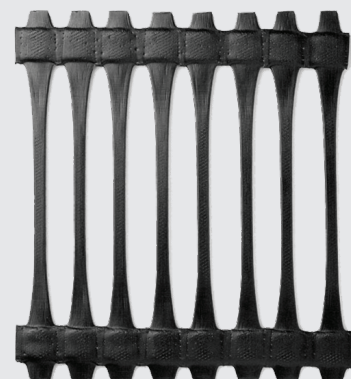
Minimum Reduction Factor for Installation Damage (RF _{id}) ⁸		1.00
Minimum Reduction Factor for Durability		1.00

DIMENSIONS AND DELIVERY

The uniaxial geogrid shall be delivered to the job site in roll form with each roll individually identified and nominally measuring 1m (3.28-FT) in width and 100m (328-FT) in length or 2m (6.56-FT) in width and 50m (164-FT) in length.

Notes

1. Unless indicated otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759-11. Brief descriptions of test procedures are as follows:
2. True resistance to elongation when initially subjected to a load measured via ASTM D6637-15 without Deforming test materials under load before measuring such resistance or employing "secant" or "offset" tangent methods of measurement so as to overstate tensile properties.
3. Load transfer capability determined in accordance with ASTM D7737-15.
4. Resistance to bending force determined in accordance with ASTM D5732-01, using specimen dimensions of 864 millimeters in length by one aperture in width.
5. Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
6. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355-14.
7. Allowable design strength determined for 120-year design life and in-soil temperature of 20°C using standard extrapolation techniques to creep rupture data obtained following the test procedure in ISO 13431. Actual design life of the completed structure may differ.
8. Minimum value is based on Installation Damage Testing in Sand, Silt, and Clay soils. Coarser soils require increased RFID values.



Tenax warrants that the geogrid products delivered hereunder conform to the stated specification at the time of delivery. All other warranties including claims for performance or suitability for application are excluded. This product specification supersedes all prior specifications for the product described above and is not applicable for products shipped before November 2014.