

PET UNIAXIAL GEOGRID

Polyester (PET) type geogrids are made from a woven matrix of high-tenacity polyester fibers coated with a protective polymer coating. The polyester fibers are oriented in one principal strength direction. Geogrids interlock with the soil providing long term reinforcement and are the most cost-effective method of creating additional horizontal space.

| July 2024 | | Uniaxial Geogrid – Metric Values | | | | | | | | | |
|---------------------|---|---|------|------|------|------|-------|-------|-------|-------|-------|
| Material Properties | ASTM | 2XT ³ | 3XT | 5XT | 7XT | 8XT | 10XT | 20XT | 22XT | 24XT | |
| | Wide Width (kN/m) MD ⁴ | D6637 Ultimate | 33.6 | 53.3 | 68.6 | 91.9 | 110.9 | 148.8 | 233.4 | 306.4 | 408.5 |
| | Creep Rupture Strength(kN/m) ^{1,5} | D5262/ D6992 | 23.2 | 35.5 | 47.6 | 55.3 | 77.0 | 103.3 | 167.2 | 212.8 | 283.7 |
| | LTDS (kN/m) ^{2,5} | 75-year design life – sand, silt, clay. R _{FCR} = 1.44; R _{FD} = 1.05; R _D = 1.1 | | | | | | | | | |
| | Sand, Silt, Clay ^{2,5} | | 20.2 | 32.0 | 41.2 | 55.3 | 66.7 | 89.5 | 140.4 | 184.2 | 245.6 |
| | Roll Width (m) | | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 |
| | Roll Length (m) | | 46 | 46 | 46 | 61 | 46 | 61 | 61 | 61 | 61 |
| | Roll Weight(kg) | | 49 | 52 | 52 | 52 | 93 | 102 | 157 | 226 | 270 |

Note¹ 75-year design life based on NTPEP Report for each specific product – report available upon request.

Note² Value based on Long Term Design Strength for sand, silt, clay R_{FCR} = 1.44; R_{FD} = 1.05; R_D = 1.1

(Installation damage reduction factor for other soils available upon request)

Note³ Values shown for 2XT are both machine and cross-machine direction. Values for other products are machine direction only.

Note⁴ MARV – Minimum Average Roll Value

Note⁵ Minimum Roll Value

| July 2024 | | Uniaxial Geogrid – Imperial (US) Values | | | | | | | | | |
|---------------------|--|---|------|------|------|------|------|-------|-------|-------|-------|
| Material Properties | ASTM | 2XT ³ | 3XT | 5XT | 7XT | 8XT | 10XT | 20XT | 22XT | 24XT | |
| | Wide Width (lbs/ft) MD ⁴ | D6637 Ultimate | 2300 | 3650 | 4700 | 6300 | 7600 | 10200 | 16000 | 21000 | 28000 |
| | Creep Rupture Strength (lbs/ft) ^{1,5} | D5262 D6992 | 1597 | 2535 | 3264 | 4375 | 5278 | 7083 | 11111 | 14583 | 19444 |
| | LTDS (lbs/ft) ^{2,5} | 75-year design life – sand, silt, clay. R _{FCR} = 1.44; R _{FD} = 1.05; R _D = 1.1 | | | | | | | | | |
| | Sand, Silt, Clay ^{2,5} | | 1383 | 2195 | 2826 | 3788 | 4570 | 6133 | 9620 | 12626 | 16835 |
| | Roll Width (ft) | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| | Roll Length (ft) | | 150 | 150 | 150 | 200 | 200 | 200 | 200 | 200 | 200 |
| | Roll Weight Typical (lbs) | | 109 | 115 | 135 | 188 | 205 | 223 | 387 | 499 | 595 |

Note¹ 75-year design life based on NTPEP Report for each specific product – report available upon request.

Note² Value based on Long Term Design Strength for sand, silt, clay R_{FCR} = 1.44; R_{FD} = 1.05; R_D = 1.1

(Installation damage reduction factor for other soils available upon request)

Note³ Values shown for 2XT are both machine and cross-machine direction. Values for other products are machine direction only.

Note⁴ MARV – Minimum Average Roll Value

Note⁵ Minimum Roll Value

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