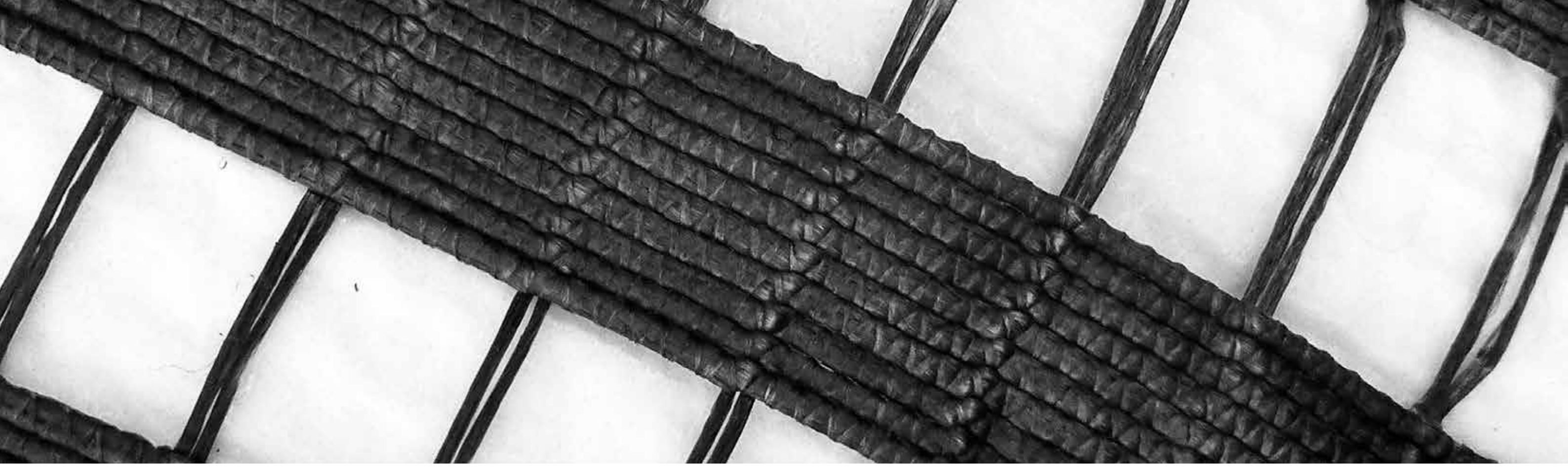
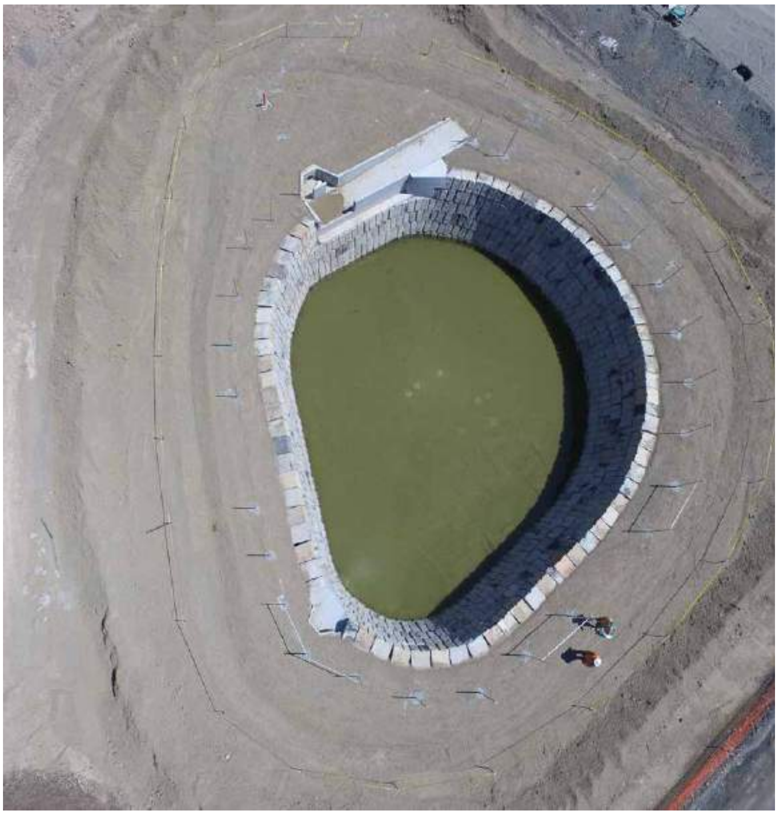


# TerraGrid® HSG Uniaxial

## PET High Strength Coated Geogrid

**TerraGrid® HSG** are manufactured from high tenacity polyester (PET) yarns, knitted to form a structured grid.



### DESIGNED FOR CIVIL ENGINEERING APPLICATIONS:

- ✓ Reinforcement of granular soils
- ✓ Embankment reinforcement
- ✓ Retaining structures
- ✓ Basal reinforcement
- ✓ Piling platforms
- ✓ Subgrade improvement

Product strength and stiffness are affected both by temperature and by rate or duration of loading. For these reason it's important that standard methods of tensile testing are used, so that temperature and strain rate are de ined.

**TerraGrid® HSG**, quality control (QC) tensile testing is carried out using the method given in International Standard EN ISO10319. This is a wide width method with specimen width of 200mm. Strain rate is 20% per minute and test temperature is 20°C.

| Properties | SYM | UNIT | Hock® PET High Strength Coated Uniaxial Geogrids Range | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 150 | 200 | 250 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| Ultimate Tensile Strength MD | $T_u$ | kN/m | 150 | 200 | 250 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| Elongation (+/- 2%) | | % | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Aperture Size (+/- 20%) | | mm | 25/30 | 25/30 | 25/30 | 25/30 | 25/30 | 25/30 | 25/30 | 25/30 | 25/30 | 25/30 | 25/30 | 25/30 | 25/30 |
| Tensile Strength @ 2% Strain MD | $T_{2\%}$ | kN/m | 30 | 40 | 50 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 220 | 240 |
| Tensile Strength @ 5% Strain MD | $Tcs_{5\%}$ | kN/m | 60 | 80 | 100 | 120 | 160 | 200 | 240 | 280 | 320 | 360 | 400 | 440 | 480 |
| 5yr Creep Rupture LTDS (MD), Td | $T_{d5}$ | kN/m | 100.3 | 133.7 | 167.1 | 200.5 | 267.4 | 334.2 | 401.1 | 467.9 | 534.8 | 601.6 | 668.4 | 735.3 | 802.1 |
| 120yr Creep Rupture LTDS (MD), Td | $T_{d120}$ | kN/m | 85.5 | 114.0 | 142.5 | 171.0 | 228.0 | 285.0 | 342.0 | 399.0 | 456.0 | 513.0 | 570.0 | 627.0 | 684.0 |
| 120yr Creep Strain LTDS (MD) @ 5% | $T_{cs120}$ | kN/m | 49.6 | 66.1 | 82.6 | 99.2 | 132.2 | 165.3 | 198.3 | 231.4 | 264.5 | 297.5 | 330.6 | 363.6 | 396.7 |

$\mathbf{T_D = T_u / (f_c \times f_d \times f_e \times f_m)}$ where $f_{c(creep)}$ = 1.45 (120years); fc = 1.36 (5 to 10 years); $f_{d(damage)}$ = 1.10 (sand, silt or clay); $f_{e(environmental)}$ = 1.10 (pH=4 to 9) and $f_{ext(SIM)}$ = 1.00

Consult Polyfabrics Australasia or a certified Engineer for site specific installation instructions. Polyfabrics Australasia reserves the right to change its product specification at any time. It is the responsibility of the specifier and purchaser to ensure that product specifications used for design and procurement purposes are current and consistent with the products used in each instance.