# TechGrid – TGC B 210

*PRODUCT DATASHEET*

**TechGrid TGC series** are knitted non-woven geotextile composites, incorporating high tenacity yarns in both directions. The high tenacity polyester yarns with low creep strain perform the reinforcement function, while the polypropylene needle punched non-woven geotextile provides both separation and drainage.

| Physical Properties: | Units | | TGC-210/210 | Test Method |
|---|---|---|---|---|
| **Composition** | **Knitted, high tenacity, polyester yarns** | | | |
| **[1]Tensile Strength (Ultimate)** | MD/CD | kN/m | **210** | EN ISO-10319 |
| **Elongation @ Ultimate (±2)** | MD/CD | % | **10** | |
| **Tensile Strength @ 2% Strain** | MD/CD | kN/m | **36** | |
| **Tensile Strength @ 5% Strain** | MD/CD | kN/m | **90** | |
| **Reduction Factor (RF) and factor of safety ($f_s$) for calculation of MD Long-term Design Strength (LTDS):** | | | | |
| **Creep ($RF_{CR}$) – 120 years design life at 20°C temperature** | | | **1.54** | ASTM D 6992 |
| **Installation damage with yarn facing soil ($RF_{ID}$)** | Sand/silt/clay | | **1.02** | |
| **Durability ($RF_{CH}$), 120 years design life at 20°C temperature, pH = 4 to 8.9** | | | **1.10** | |
| **Weathering ($RF_W$)** | To be covered in 1 day | | **1.00** | |
| **Factor of safety for extrapolation of data for 120 years ($f_s$)** | | | **1.00** | |
| **LTDS – 120 YEARS: Sand/silt/clay for pH = 4 to 8.9** | | **kN/m** | **121.50** | |
| **Hydraulic Properties:** | | | | |
| **Water Permeability Normal to the Plane (-25)** | $l/m^2/s$ | | **112.0** | EN ISO-11058 |
| **Apparent Pore Opening Size** | µm | | **150** | EN ISO-12956 |
| **Standard Roll Dimensions:** | | | | |
| **Roll Width x Length** | **5m x 100m** | | | |

1. Minimum Average Roll Value (MARV).