

## Terrafix TTX160

TTX160 is a polypropylene single layer extruded in a three-dimensional direction. This engineered geogrid is stabilized to resist degradation due to ultraviolet exposure. It is resistant to commonly encountered soil chemicals, mildew, and insects, and is non-biodegradable. Polypropylene is stable within a pH range of 2 to 13, making it one of the most stable polymers available for geogrids today. TTX160 is manufactured to meet the following minimum average roll values:

| PROPERTY                               | TEST METHOD   | Longitudinal | Diagonal   | General        |
|----------------------------------------|---------------|--------------|------------|----------------|
| <b>Index Properties</b>                |               |              |            |                |
| Rib pitch, mm (in)                     | ASTM D4759    | 40 (1.60)    | 40 (1.60)  |                |
| Mid-rib depth, mm (in)                 | ASTM D4759    | 1.4 (0.06)   | 1.6 (0.06) |                |
| Mid-rib width, mm (in)                 | ASTM D4759    | 1.2 (0.05)   | 1.1 (0.04) |                |
| Rib Shape                              | ASTM D4759    |              |            | Rectangular    |
| Aperture shape                         | ASTM D4759    |              |            | Triangular     |
| <b>Mechanical properties</b>           |               |              |            |                |
| Radial Stiffness at 0.5% strain (kN/m) | ASTM D7737-11 |              |            | 315            |
| Radial Stiffness at 2.0 strain (kN/m)  | ASTM D7737-11 |              |            | 225            |
| Radial Stiffness Ratio                 | ASTM D6637    |              |            | 0.65           |
| Junction Efficiency %                  | ASTM D7737    |              |            | 93             |
| Resistance to Chemical Degradation     | EPA 9090      |              |            | 100%           |
| Resistance to UV Degradation           | ASTM D4355    |              |            | 70 % @ 500 hrs |

- 1 At the time of manufacturing. Handling, storage, and shipping may change these properties.
- 2 Value represents maximum average roll value.

### Index Properties:

Geogrid testing values in accordance with ASTM D4759 (minimum average roll values) in accordance with test methods EOTA TR041 and ISO 10319 at the temperature of 21±1°C.

### Mechanical properties:

\*ASTM D6637-10 and ASTM D7737-11: Junction efficiency %. Load transfer capability is determined as a percentage of ultimate tensile strength.

\*\*ASTM D6637-10: radial stiffness at low strain, kN/m @ 0.5% strain (lb/ft @ 0.5% strain). Radial stiffness is determined from tensile stiffness measured in any in-plane axis. Stiffness Ratio: The ratio between the minimum and maximum observed values of radial stiffness at 0.5% strain, measured on rib and midway between rib directions.

\*\*\*EPA 9090: Resistance to chemical degradation. Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments including acids, alkalis and salts, normally found in soils. Also, it is not a nutrient, therefore, these products will not be affected by micro-organisms in soil.

\*\*\*\*ASTM D4355-05: Resistance to ultra-violet light and weathering. Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering.

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