

**PERFORMANCE & MATERIAL SPECIFICATION SUMMARY**

|                              | Property                       | Value   |  |                                      | Test Method                                   |   |
|------------------------------|--------------------------------|---|--|--------------------------------------|---|---|
| Base Material                | Material Composition           | Polymer – Polyethylene with density of 0.935 – 0.965 g/cm <sup>3</sup> (58.4 - 60.2 lb/ft <sup>3</sup> )  |  |                                      | ASTM D 1505                                   |   |
|                              | Color                          | Black - from Carbon Black   | Tan, Green, Other Colors with no heavy metal content   |                                      | N/A   |   |
|                              | Stabilizer                     | Carbon black content 1.5% - 2% by weight  | Hindered amine light stabilizer (HALS) 2.0% by weight of carrier   |                                      | N/A   |   |
|                              | Minimum ESCR                   | 5000 hr   |  |                                      | ASTM D 1693                                   |   |
| Strip Properties             | Sheet Thickness                | Prior to Texture: 1.27 mm -5% +10% (50 mil -5% +10%)<br>After Texture: 1.52 mm -5% +10% (60 mil -5% +10%)   |  |                                      | ASTM D 5199                                   |   |
|                              | Surface Treatment              | <b>Performance:</b> The polyethylene strips shall be textured and perforated such that the peak friction angle between the surface of the textured / perforated plastic and a #40 silica sand at 100% relative density shall be no less than 85% of the peak friction angle of the silica sand in isolation when tested by the direct shear method per ASTM D 5321. The quantity of perforations shall remove 21.2% ± 1.0% of the cell wall area. | <b>Material:</b> The polyethylene strips shall be textured with a multitude of rhomboidal (diamond shape) indentations. The rhomboidal indentations shall have a surface density of 22 – 31 per cm <sup>2</sup> (140 – 200 per in <sup>2</sup> ). In addition, the strips shall be perforated with horizontal rows of 10 mm (0.4 in) diameter holes. Perforations within each row shall be 19 mm (0.75 in) on-center. Horizontal rows shall be staggered and separated 12 mm (0.50 in) relative to the hole centers. The edge of strip to the nearest edge of perforation shall be 8 mm (0.3 in) minimum and the centerline of the weld to the nearest edge of perforation shall be 18 mm (0.7 in) minimum. A slot with a dimension of 10 mm x 35 mm (3/8 in x 1 3/8 in) is standard in the center of the non-perforated areas and at the center of each weld. |                                      |   |   |
| Cell & Seam Properties       | Cell Details                   | Depth   | Nominal Dimensions ±10%  |                                      | Density per m <sup>2</sup> (yd <sup>2</sup> ) | Nominal Area ±1%                            |
|                              |                                |   | Length   | Width                                |   |   |
|                              | GW20V                          | 200 mm (8 in)   | 224 mm (8.8 in)  | 259 mm (10.2 in)                     | 36.4 (28.9)                                   | 289 cm <sup>2</sup> (44.8 in <sup>2</sup> ) |
|                              | Short-term Seam Peel Strength  | Cell Depth  |  | Minimum Certified Cell Seam Strength |   |   |
| Long-term Seam Peel Strength | 200 mm (8 in) 2840 N (640 lbf) |   |  |                                      |   |   |
|                              |                                | Long term seam peel-strength test shall be performed on all resin or pre-manufactured sheet or strips. A 100 mm (4.0 in) wide seam sample shall support a 72.5 kg (160 lb) load for a period of 168 hours (7 days) minimum in a temperature-controlled environment undergoing a temperature change on a 1-hour cycle from ambient room to 54°C (130°F). Ambient room temperature is per ASTM E 41.  |  |                                      |   |   |
| Section Properties           | Section Dimension              | Section Width   | Section Length Range (Cells Long: 18, 21, 25, 29, 34)  |                                      |   |   |
|                              |                                | Variable  | Minimum  | Maximum                              |   |   |
|                              | GW20V                          | 2.3 m (7.7 ft) to 2.8 m (9.2 ft)  | 3.7 m (12.0 ft)  |                                      | 8.3 m (27.3 ft)                               |   |
| Certifications & Warranties  | Geoweb® Material               | Geoweb® sections are manufactured under a quality management system that is ISO-9001:2015 certified. For additional certification and warranty information, refer to the <b>Presto Geosystems Geoweb® Cellular Confinement Specification.</b>   |  |                                      |   |   |

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