



Perforated V-Series Geoweb® System Performance & Material Specification Summary
GW40V - 75 mm (3 in) Depth

| | Property | Value | | | Test Method | |
|------------------------------|--|--|--|---|---|---|
| Base Material | Material Composition | Polymer – Polyethylene with density of 0.935 – 0.965 g/cm ³ (58.4 - 60.2 lb/ft ³) | | | 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) 1.0% by weight of carrier | | N/A | |
| | Minimum ESCR | 3000 hr | | | ASTM D 1693 | |
| Strip Properties | Sheet Thickness | 1.27 mm -5% +10% (50 mil -5% +10%) | | | ASTM D 5199 | |
| | Surface Treatment | Performance: 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 20.75% ± 0.5% of the cell wall area. | | Material: 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 ² (140 – 200 per in ²). 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. | | |
| Cell & Seam Properties | Cell Details | Depth | Nominal Dimensions ±10% | | Density per m ² (yd ²) | Nominal Area ±1% |
| | | | Length | Width | | |
| | GW40V | 75 mm (3 in) | 475 mm (18.7 in) | 508 mm (20.0 in) | 8.3 (6.9) | 1206 cm ² (187.0 in ²) |
| | Short-term Seam Peel Strength | Cell Depth | | Minimum Certified Cell Seam Strength | | |
| | 75 mm (3 in) | | 1060 N (240 lbf) | | | |
| Long-term Seam Peel Strength | 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 | | |
| | GW40V | 2.3 m (7.7 ft) to 2.8 m (9.2 ft) | 7.7 m (25.4 ft) | | 17.8 m (58.2 ft) | |
| Certifications & Warranties | Geoweb® Material | Geoweb® sections are manufactured under a quality management system that is ISO-9001:2000 certified. For additional certification and warranty information, refer to the Geoweb® Cellular Confinement System V Series Material Specification . | | | | |