



**Perforated V-Series Geoweb® System Performance & Material Specification Summary**  
**GW40V - 100 mm (4 in) Depth**

	Property	Value			Test Method	
Base Material	<b>Material Composition</b>	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	
	<b>Color</b>	Black - from Carbon Black	Tan, Green, Other Colors with no heavy metal content		N/A	
	<b>Stabilizer</b>	Carbon black content 1.5% - 2% by weight	Hindered amine light stabilizer (HALS) 1.0% by weight of carrier		N/A	
	<b>Minimum ESCR</b>	3000 hr			ASTM D 1693	
Strip Properties	<b>Sheet Thickness</b>	1.27 mm -5% +10% (50 mil -5% +10%)			ASTM D 5199	
	<b>Surface Treatment</b>	<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 20.75% ± 0.5% 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.		
Cell & Seam Properties	<b>Cell Details</b>	<b>Depth</b>	<b>Nominal Dimensions ±10%</b>		<b>Density per m<sup>2</sup> (yd<sup>2</sup>)</b>	<b>Nominal Area ±1%</b>
			<b>Length</b>	<b>Width</b>		
	<b>GW40V</b>	100 mm (4 in)	475 mm (18.7 in)	508 mm (20.0 in)	8.3 (6.9)	1206 cm <sup>2</sup> (187.0 in <sup>2</sup> )
	<b>Short-term Seam Peel Strength</b>	<b>Cell Depth</b>		<b>Minimum Certified Cell Seam Strength</b>		
	100 mm (4 in)		1420 N (320 lbf)			
<b>Long-term Seam Peel Strength</b>	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	<b>Section Dimension</b>	<b>Section Width</b>		<b>Section Length Range (Cells Long: 18, 21, 25, 29, 34)</b>		
		<b>Variable</b>		<b>Minimum</b>	<b>Maximum</b>	
	<b>GW40V</b>	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)
<b>Certifications &amp; Warranties</b>	<b>Geoweb® Material</b>	Geoweb® sections are manufactured under a quality management system that is ISO-9001:2000 certified. For additional certification and warranty information, refer to the <b>Geoweb® Cellular Confinement System V Series Material Specification</b> .				