

PERFORMANCE & MATERIAL SPECIFICATION SUMMARY

	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 D1505	
	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		ASTM D1603	
	Minimum ESCR	5000 hr			ASTM D1693	
Strip Properties	Sheet Thickness	Prior to Texture: 1.27 mm -5% +10% (50 mil -5% +10%) After Texture: 1.52 mm -5% +10% (60 mil -5% +10%)			ASTM D5199	
	Surface Treatment	<p>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 19.8% ± 1.0% of the cell wall area.</p>	<p>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 cm² (140 – 200 per in²). 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.</p>			
Cell & Seam Properties	Cell Details	Depth	Nominal Dimensions ±10%		Density per m ² (yd ²)	Nominal Area ±1%
			Length	Width		
	GW40V	150 mm (6 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		
Long-term Seam Peel Strength	150 mm (6 in)					2130 N (480 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	
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-9001:2008 certified. For additional certification and warranty information, refer to the Presto Geosystems Geoweb® Cellular Confinement Specification .				

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