

	Property	Value		Test method
Base Material	Material Composition	Polymer – Polyethylene with density of 58.4 – 60.2 lb/ft <sup>3</sup> (0.935 – 0.965 g/cm <sup>3</sup> )		
	Color	Black - from Carbon Black	Tan, Green, Other Colors with no heavy metal content	
	Stabilizer	Carbon black content 1.5% - 2% by weight	Hindered amine light stabilizer (HALS) 1.0% by weight of carrier	
	Minimum ESCR	5000 hr		
Strip Properties	Sheet Thickness	Prior to Texture: 50 mil, -5% +10% (1.27 mm, -5% +10%) ASTM D 5199 After Texture: 60 mil, -5% +10% (1.52 mm, -5% +10%)		
	Surface Treatment	<p><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 #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.</p>	<p><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 140 – 200 per in<sup>2</sup> (22 – 31 per cm<sup>2</sup>). In addition, the strips shall be perforated with horizontal rows of 0.4 in (10 mm) diameter holes. Perforations within each row shall be 0.75 in (19 mm) on-center. Horizontal rows shall be staggered and separated 0.5 in (12 mm) relative to the hole centers. The edge of strip to the nearest edge of perforation shall be 0.3 in (8 mm) minimum and the centerline of the weld to the nearest edge of perforation shall be 0.7 in (18 mm) minimum. A slot with a dimension of 3/8 in x 1 3/8 in (10 mm x 35 mm) is standard in the center of the nonperforated areas and at the center of each weld.</p>	
Cell & Seam Properties	Short-term Seam Peel Strength	Cell Depth	Minimum Certified Cell Seam Strength	
		3 in (75 mm)	240 lbf (1060 N)	
		4 in (100 mm)	320 lbf (1420 N)	
	6 in (150 mm)	480 lbf (2130 N)		
	Long-term Seam Peel Strength	Long-term seam peel strength test shall be performed on all resin or pre-manufactured sheet or strips. A 4.0 in (100 mm) wide seam sample shall support a 160 lb (72.5 kg) 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 130°F (54°C). Ambient room temperature is per ASTM E 41		
10,000-hour Seam Peel Strength Certification	BaseCore shall provide data showing that the high-density polyethylene resin used to produce the Geocell sections has been tested using an appropriate number of seam samples and varying loads to generate data indicating that the seam peel strength shall survive a loading of at least 209 lbf (95 kg) for a minimum of 10,000 hours.			