

## Geo-Net and Geocomposites



Geo-Net, also called drainage net, is a cost effective alternative to aggregate drains in containment systems. Geo-Nets take up less space than aggregate drains and can help to maximize volume in landfills and surface impoundments. Geo-Nets are commonly used between two geomembrane liners as part of a leak detection system. When placing Geo-Nets with geotextiles it is often effective to have the geotextile bonded to the Geo-Net in the factory. Geocomposites usually have a geotextile bonded to one, or to both sides of a Geo-Net. This creates a drainage structure that can be used between layers of geomembranes, and in many other unusual situations. The geotextile layers prevent the movement of soil fines into the Geo-Net drainage path that could lead to clogging and drainage failure.

The geomembrane selection and design process can often be challenging. Besides the geomembrane material performance, several other factors should be considered; wind, moisture, temperature fluctuations, installation location and construction schedule are only a few that need to be factored into your geomembrane selection. Contain Enviro Services has over 15 years of geomembrane installation experience and can help guide you through the process. With access to the complete range of Geomembrane materials, Contain Enviro Services Ltd. will be suggest the most cost-effective liner material while still meeting the timing, environmental and safety requirements of your project.



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Style	Geo-Net Material Properties		
	ASTM	Geo-Net 5	Geo-Net 6
Thickness(Nominal)	D5199	220 +/- 20 mil 5.5 +/- 0.5 mm	270 +/- 15 mil 6.8 +/- 0.4 mm
Tensile Strength	D5035	50 lb/in 87.8 N/cm	75 lb/in 131.7 N/cm
Transmissivity <sup>1</sup>	D4716	1x10 <sup>-3</sup> m <sup>2</sup> /sec	3x10 <sup>-3</sup> m <sup>2</sup> /sec
Carbon Black Content	D1603	2%	2 %

### Geo-Comp Material Properties

Style	Geo-Composite Material Properties (MARV)		
	ASTM	Geo-Comp 5-2-6	Geo-Comp 5-2-8
<b>Geo-Net Component</b>			
Thickness(Nominal)	D5199	220 +/- 20 mil 5.5 +/-0.5 mm	220 +/- 20 mil 5.5 +/- 0.5 mm
Tensile Strength	D5035	50 lb/in 87.8 N/cm	50 lb/in 87.8 N/cm
Transmissivity (Geocomp) <sup>1</sup>	D4716	1 x 10 <sup>-4</sup> m <sup>2</sup> /sec	1 x 10 <sup>-4</sup> m <sup>2</sup> /sec
Carbon Black Content	D1603	2%	2%
<b>Geotextile Component</b> (component properties are tested prior to lamination process)			
Grab Tensile	D4632	160 lbs 712 N	225 lbs 1001 N
Puncture Resistance	D4833	80 lbs 356 N	130 lbs 578 N
Water Flow Rate	D4491	125 gpm/ft <sup>2</sup> 5078 l/min/m <sup>2</sup>	100 gpm/ft2 4063 l/min/m2
AOS (Sieve Size)	D4751	70 sieve 0.210 mm	80 sieve 0.180 mm
Fabric Weight (Nominal)	D5261	6 oz/yd <sup>2</sup> 203 g/m <sup>2</sup>	8 oz/yd2 271 g/m2

<sup>1</sup> Transmissivity measured using water at 21 ± 2°C (70 ± 4°F) with a gradient of 0.1 and a confining pressure of 10000 psf between steel plates after 15 minutes. Values may vary between individual labs.

<sup>2</sup> Above configuration is Geo-net laminated on both sides to geotextile layers. Geocomposite is also available with geotextile on only one side of Geo-net (eg. 5-1-6 or 5-1-8) or Geo-net 6 as the Geo-Net.

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