

## ***BENTOMAT “CS100” CERTIFIED PROPERTIES***

<b>MATERIAL PROPERTY</b>	<b>TEST METHOD</b>	<b>TEST FREQUENCY, m<sup>2</sup></b>	<b>REQUIRED VALUES</b>
GCL Permeability <sup>1</sup>	ASTM D 5084	Weekly	5 x 10 <sup>-11</sup> m/s
Bentonite Fluid Loss	ASTM D 5891	5,000 m <sup>2</sup>	18 mL max.
Bentonite Mass/Area	ASTM D 5261	5,000 m <sup>2</sup>	4.8 kg/m <sup>2</sup>
GCL Grab Strength <sup>2</sup>	ASTM D 4632	5,000 m <sup>2</sup>	400 N
GCL Grab Elongation	ASTM D 4632	5,000 m <sup>2</sup>	20 percent typical
GCL Peel Strength	ASTM D 4632	5,000 m <sup>2</sup>	65 N
Bentonite Free Swell <sup>3</sup>	ASTM D 5890	5,000 m <sup>2</sup>	24 mL / 2g min.

***Bentomat “CS100” is a reinforced GCL consisting of a layer of natural sodium bentonite between a woven and a non-woven geotextile which are needlepunched together.***

Notes:

- <sup>1</sup> Permeability calculated from ASTM D 5887 Index Flux Test with deaired distilled water at 35 kPa confining pressure and 15 kPa head pressure
- <sup>2</sup> All tensile testing is performed in the machine direction, with results as minimum average roll values unless otherwise indicated.
- <sup>3</sup> Bentonite properties as removed from the finished GCL. Bentonite mass/area reported at 12 percent moisture.