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## Product Specification Sheet

# A.G.A. Claymat

## High Technology Natural Lining System for Sealed Water Containment Structures

A.G.A. Claymat is a reinforced Geosynthetic Clay Liner (GCL) consisting of a layer of natural sodium Bentonite between a woven and a non-woven geotextile which are needle punched together

Material property	Analysis conducted based on test method	Test frequency (m <sup>2</sup> )	Required values
Bentonite Swell Index* <sup>3</sup>	ASTM D 5890	10,000	24 ml / 2g min.
Bentonite Mass per unit Area* <sup>4</sup>	ASTM D 5993/EN 14196	5,000	4.8 kg/m <sup>2</sup>
Bentonite Fluid Loss	ASTM D 5891	10,000	18 ml max.
GCL Peel Strength	ASTM D 6496	5,000	65 N
GCL Index Flux* <sup>1</sup>	ASTM D 5887	25,000	2 x 10 <sup>-9</sup> (m <sup>3</sup> /m <sup>2</sup> )/s
GCL Permeability* <sup>1</sup>	ASTM D 5887	25,000	1 x 10 <sup>-11</sup> m/s
Tensile Strength* <sup>2</sup>	EN ISO 10319	20,000	8 kN/m
Elongation	EN ISO 10319	20,000	15 per cent typical
Mass per unit area of woven geotextile	ASTM D 5261	1 per 20,000	100 g/m <sup>2</sup>
Mass per unit area of (non-woven) needle-punched geotextiles	ASTM D 5261	1 per 20,000	200 g/m <sup>2</sup>

### Notes:

1. Index flux and permeability testing with de-aired distilled/de-ionized water at 80 psi (551 kPa) cell pressure, 77 psi (531 kPa) headwater pressure and 75 psi (517 kPa) tall water pressure.
2. All tensile testing is performed in the machine direction.
3. Bentonite properties as removed from the finished GCL.
4. Bentonite mass/area reported at 12 per cent moisture

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