

TECHNICAL DATA SHEET

Bentoliner® SPL® 4000/100/200

Bentoliner® SPL 4000/100/200 is a composite needle punched GCL. Consists of woven and nonwoven geotextiles sandwiching sodium bentonite granules. The bentonite is > 80% by weight sodium activated bentonite.

Properties of Geotextile	Test Method	Frequency	Value
Carrier Layer - Woven	AS 3706.1	1/20,000 m ²	> 100 g/m ²
Cover Layer - Nonwoven	AS 3706.1	1/20,000 m ²	> 200 g/m ²

Properties of Bentonite	Test Method	Frequency	Value
Montmorillonite Content	X-ray diffraction	1/50 tonnes	≥ 75%
Swell Index	ASTM D 5890	1/40 tonnes	≥ 24 mL/2g
Fluid Loss	ASTM D 5891	1/40 tonnes	≤ 18 mL (max.)
Cation Exchange Capacity	Methylene Blue Test	1/50 tonnes	≥ 70 meq/100g (typ.)
Carbonate Content	XRD	1/50 tonnes	≤ 2 wt% (typ.)
Moisture Content	ASTM D 5993	1/4,000 m ²	≤ 10% (typ.)
Particle Size Passing 0.2 to 2mm Screen	AS 1289.3.6.2	1/40 tonnes	> 90% (typ.)

Properties of GCL	Test Method	Frequency	Value
Mass per unit area of bentonite ⁽¹⁾	ASTM D 5993	1/4,000 m ²	≥ 3700 g/m ²
Mass per unit area of GCL ⁽¹⁾	ASTM D 5993	1/4,000 m ²	≥ 4000 g/m ²
Moisture content	ASTM D 5993	1/4,000 m ²	≤ 10% (max.)
Tensile Strength MD	ASTM D 6768	1/4,000 m ²	≥ 8.0 kN/m
Permeability	ASTM D 5887	1/10,000 m ²	≤ 3.0x10 ⁻¹¹ m/s (typ.)
CBR Burst Strength	AS 3706.4	1/4,000 m ²	≥ 1,600 N
Tensile Elongation @ break	ASTM D4595	1/4,000 m ²	≥ 10%
Internal Shear Strength 10 kPa	ASTM D 6243	Periodic	30 kPa (typ.)
Internal Shear Strength 30 kPa	ASTM D 6243	Periodic	50 kPa (typ.)
Peel Strength	ASTM D 6496	1/4000 m ²	≥ 360 N/m

Standard Roll Dimensions	Test Method	Frequency	Value
Width x Length	Typical	Every roll	5.0 m x 30 m
Quantity	Typical	Every roll	150 m ²

Notes

⁽¹⁾at 0% moisture content

Properties are MARV values unless stated otherwise. Derived from standard tests and are subject to usual product variation. The right is reserved to make changes without notice at any time.

Consult Polyfabrics Australasia or a certified Engineer for site specific installation instructions. Polyfabrics Australasia reserves the right to change its product specification at any time. It is the responsibility of the specifier and purchaser to ensure that product specifications used for design and procurement purposes are current and consistent with the products used in each instance.

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