

# BentoSure NW4000

## Active Mineral Barrier

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BentoSure is a reinforced (needle punched) GCL which consists of a layer of natural sodium bentonite between two geotextiles. BentoSure adopts unique self-seaming overlaps technology which doesn't require any additional treatment of its longitudinal edges.

MATERIAL PROPERTY	TEST METHOD	TEST FREQUENCY	VALUES
<b>GEOTEXTILES</b>			
COVER LAYER: NONWOVEN	ASTM D 5261	20,000 m <sup>2</sup>	200 g/m <sup>2</sup>
CARRIER LAYER: WOVEN	ASTM D 5261	20,000 m <sup>2</sup>	100 g/m <sup>2</sup>
<b>BENTONITE</b>			
MASS PER UNIT AREA <sup>(1)</sup>	ASTM D 5993	4,000 m <sup>2</sup>	3200 g/m <sup>2</sup>
FREE SWELL	ASTM D 5890	50 t	24 ml/2g
FLUID LOSS	ASTM D 5891	50 t	18 ml **
MONTMORILLONITE CONTENT	XRD	every batch	80%
CARBONATES CONTENT	XRD	every batch	1-2 % **
<b>GCL</b>			
GCL MASS PER UNIT AREA <sup>(1)</sup>	ASTM D 5993	4,000 m <sup>2</sup>	3500 g/m <sup>2</sup>
THICKNESS	EN ISO 9863-1	4,000 m <sup>2</sup>	5.5 mm
TENSILE STRENGTH	ASTM D 6768	20,000 m <sup>2</sup>	9.0 kN/m
PEEL STRENGTH	ASTM D 6496	20,000 m <sup>2</sup>	600 N/m
STATIC PUNCTURE RESISTANCE (CBR)	ASTM D 6241	20,000 m <sup>2</sup>	1.8 kN
GCL HYDRAULIC CONDUCTIVITY	ASTM D 5887	weekly	3.0 x 10 <sup>-11</sup> m/s **
GCL INDEX FLUX	ASTM D 5887	weekly	8.0 x 10 <sup>-9</sup> m <sup>3</sup> /m <sup>2</sup> /s **
ROLL DIMENSIONS			40.0m x 5.00m (200m <sup>2</sup> )

<sup>(1)</sup> reported at 0% moisture content. All values at 95% confidence level. All values are MARV, except those marked with \*\* which are MaxARV.

### APPLICATION:

- Water reservoirs, dams and river embankments
- Liquid waste disposals sites, transfer stations, secondary containment
- Transport infrastructure
- Canals
- Solid waste storage and disposal sites

### ADVANTAGES:

- Self-healing
- Robust construction
- Limited preparation work
- Easy and quick installation
- Long performance

### INSTALLATION:

- Unrolled on smooth and compacted subgrade
- Subsequent panels lapped 300mm at leading edges

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### PACKAGING:

BentoSure is produced in 5m wide x 40m long panels, rolled onto a 100mm internal diameter central core, and protected with a plastic sleeve. Other panel sizes are available on request.

### STORAGE:

Provided the rolls are kept inside their protective plastic sleeves, further on-site protection is not required.

### SAFETY INSTRUCTION:

There are no special safety measures required for the handling and installation of BentoSure, other than those normally implemented on construction sites. Refer to the installation guide for more information.



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