



# Barrier Bento (LSS)

## (GRI GCL3 Comparison)

Functions: Sealing, Lining, Barrier

**STRUCTURE:** Bento Barrier (LSS) is a high performance needle-punched geosynthetic clay liner (GCL) composed of a homogeneous layer of granular natural Sodium bentonite encapsulated between woven and nonwoven geotextiles, in full compliance with the GRI GCL 3 specification.

<b>GEOCOMPOSITE PROPERTIES</b>		<b>4500LSS <sup>(2)</sup></b>	<b>GRI GCL3 <sup>(1)</sup></b>
Mass per unit area	g/m <sup>2</sup>	> 4 500	4 000
Permeability	m/sec	< 5 x 10 <sup>-11</sup> <sup>(3)</sup>	5 x 10 <sup>-11</sup>
Index Flux	m <sup>3</sup> /sec-m <sup>2</sup>	< 1 x 10 <sup>-9</sup>	1 x 10 <sup>-8</sup>
Tensile Strength	kN/m	> 9.00 <sup>(4)</sup>	4.00
Elongation at break	%	20	N/A
CBR Puncture	N	> 1 800	N/A
Peel Strength	N/m	> 360 <sup>(5)</sup>	360
Internal Shear Strength	kPa	> 24 <sup>(5)</sup>	N/A
Thickness	mm	6.00 <sup>(6)</sup>	N/A

  

<b>BENTONITE PROPERTIES</b>			
Mass per unit area	g/m <sup>2</sup>	> 4 200	3 700
Moisture Content	%	12	<35
Swell Index	ml/2g	> 24	24
Fluid Loss	ml	< 18	18

  

<b>GEOTEXTILE PROPERTIES</b>			
Cover Layer: <sup>(8)</sup>		Woven/Nonwoven (Polypropylene)	
Mass per unit area	g/m <sup>2</sup>	110/200	100/200
Carrier Layer: <sup>(8)</sup>		Woven/Nonwoven (Polypropylene)	
Mass per unit area	g/m <sup>2</sup>	110/240	100/240

  

<b>ROLL SIZES</b>		
Width	m	5.0
Length	m	48
Roll Weight	Kg/Roll	1 230
Loadings / 20'	No. rolls	20

1. As per GRI GCL 3: Test Methods, Required Properties and Testing Frequencies of Geosynthetic Clay Liners (GCLs) – Rev2, 26 July 2010 – Reinforced GCL/GT-Related.
2. Results reported as nominal values with Max. 10% tolerance.

3. Permeability is for GBR-C with deaired distilled water at 75psi top cap pressure, 77psi bottom cap pressure, 80psi cell pressure and 140cm of total head.
4. Tensile strength and elongation can be reported for EN ISO 10319 and ASTM D6768.
5. Peak values are measured (at 10kPa (200psi) normal stress for shear test).
6. Measured at free hydrated condition.
7. As may be required.



The information given in this datasheet is to the best of our knowledge true and correct. TeMa SA reserves the right to change its product specifications at any time. It is the responsibility of the specifier and purchaser to ensure that product specifications used for the design and procurement purposes are current and consistent with the products used in each instance.

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