TECHNICAL DATA SHEET

SOLMAX

BentoLiner®SW

Geosynthetic Clay Liner

BentoLiner®SW is a high-performance self-healing reinforced geosynthetic clay liner (GCL), the primary component of the Solmax **Structural Waterproofing** system ideal for waterproofing of underground reinforced concrete structures. It comprises a uniform layer of sodium bentonite, encapsulated between a woven and a nonwoven geotextile that is needle-punched together to create a composite structural waterproofing membrane that mechanically bonds to cast-in-place concrete.

Use

BentoLiner®SW, when confined with a minimum of 150 mm of properly designed concrete, is satisfactory for use as a fully bonded Type A waterproofing protection as defined in BS 8102 : 009 for the waterproofing of new structures and as a damp-proofing membrane for solid floors in accordance with the relevant clauses of CP 102 : 1973, Section 3.

The product can be used externally on concrete to provide an effective barrier to the transmission of liquid water where Grades 1 to 3 waterproofing protection are required, as defined in BS 8102 : 2009, Table 2.

The product prevents the passage of water between itself and the concrete structure to which it is fixed.

Application Method

Bentoliner®SW is easy to handle and can be cut using a sharp knife.

The membrane creates a mechanical bond when installed with the woven geotextile in contact with the poured concrete. It does not require priming or protection boards. It forms a highly impermeable barrier that prevents water migration between the waterproofing and the concrete surface.

A continuous waterproof barrier is formed by using lap joints with a minimum overlap of 100 mm between adjoining edges and roll ends. To prevent any displacement before and during concrete placement, secure all lap joints by either stapling laps together or fixing them to the base with proprietary washer-head fasteners.

Vertical surfaces

It is possible to install Bentoliner®SW against the outside of existing walls as well as the inside face of shuttering, before filling with poured concrete.

Horizontal surfaces

All that is required before installation is a properly prepared substrate, that is reasonably smooth, and free from standing water. It may be installed on damp surfaces.

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Product Specifications

Property	Test Method	Value[1]
Cap Nonwoven, Mass/Unit Area (nominal) [2]	ASTM D 5261 EN ISO 9864	220 g/m
Carrier Woven, Mass/Unit Area (nominal) [2]	ASTM D 5261 EN ISO 9864	110 g/m
Bentonite Properties		
Swell Index	ASTM D 5890	24 ml/2 g (min.)
Moisture Content	ASTM D 4643 ISO 11465	13 % (max.)
Fluid Loss	ASTM D 5891	18 ml (max.)
Finished GCL Properties		
Bentonite, Mass/Unit Area[3]	ASTM D 5993 EN ISO 14196	4,800 g/m
GCL, Mass/Unit Area[3]	ASTM D 5993 EN ISO 14196	5,100 g/m
Tensile Strength, MD/CMD	EN ISO 10319	8 kN/m
CBR Puncture Strength	ASTM D 6241 EN ISO 12236	1,500 N
Peel Strength	ASTM D 6496	360 N/m
Thickness	EN ISO 9863-1	6.4 mm - 0.4 mm
Hydraulic Conductivity	ASTM D 5887	5×10^{-11} m/s (max.)
Typical roll dimensions		
Width and length [4]	---	1.15 m x 5 m

NOTES:

[1] All values - unless otherwise noted - are minimum average values; obtained from in-house or external laboratory testing.
[2] Minimum average value: Nominal -10%
[3] Bentonite mass per unit area is calculated with 13% moisture content
[4] Approximate roll dimensions

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 19/5637

Certificates: BBA Agreement Certificate 19 / 5637

SOLMAX is a leading manufacturer and marketer of geosynthetic lining products and services.
We've built a reputation of reliability through our dedication to providing consistency of product, price and protection to our global customers.

Our commitment to innovation, our focus on quality and our industry expertise allow us the flexibility to collaborate with our clients to develop a custom, purpose-fit solution.

For more information on this product and other, please visit us at SOLMAX.com, call 49.40.767420 or contact your local sales office.

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