

TECHNICAL DATA

Bentomat® NS110 is a reinforced GCL consisting of a layer of sodium bentonite encapsulated between two geotextiles, needlepunched together for maximum performance under a wide variety of field conditions. This integrated matrix of bentonite and needlepunched fibers provides high shear strength and allows Bentomat to maintain low permeability.

BENTOMAT NS110

MATERIAL PROPERTY	TEST METHOD	REQUIRED VALUES	TEST FREQUENCY
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Geosynthetic Clay Liner

Flux	ASTM D 5887	$4,0 \times 10^{-09} (\text{m}^3/\text{m}^2)/\text{s}$	1/production week ⁽¹⁾
Permeability	ASTM D 5887	$2,0 \times 10^{-11} \text{m/s}$	1/production week ⁽¹⁾
Bentonite Mass/unit area ⁽²⁾	EN 14196	$5,52 \text{kg/m}^2$	5.000m^2
Bentonite Mass/unit area ⁽³⁾	EN 14196	$5,37 \text{kg/m}^2$	5.000m^2
Bentonite Mass/unit area ⁽⁴⁾	EN 14196	$4,80 \text{kg/m}^2$	5.000m^2
Tensile strength	EN ISO 10319	8,0kN/m	5.000m^2
Elongation	EN ISO 10319	20% typical	5.000m^2
Peel Strength	ASTM D 6496	800N/m	5.000m^2
Thickness	EN 9863-1	8mm typical	Continuous
Length	N/A	40m (standard)	Continuous
Width	N/A	5,0m(standard)	Continuous

Bentonite

Free swell	ASTM D 5890	25ml/2g	5.000m^2
Fluid loss	ASTM D 5891	18ml	5.000m^2
Water absorption	DIN 18132	600%	5.000m^2

Geotextilies

Nonwoven	EN 9864	200g/m^2	Certified by supplier
Woven	EN 9864	100g/m^2	Certified by supplier

Notes:

- ¹ 1/production week – average 75.000m^2 one type of Bentomat
- ² Bentonite mass/area reported at 15% moisture content.
- ³ Bentonite mass/area reported at 12% moisture content.
- ⁴ Bentonite mass/area reported at 0% moisture content.

Bentomat® can be delivered with tree types of seal: Bentomat NS110 with additionally bentonite bag, as self seaming product with additional bentonite powder impregnated into overlapping area on both longitudinal sides Bentomat NS110I or with sealing grooves Bentomat NS110G

Overlapping system:

- Bentomat NS110** ; **Bentomat NS110G**; **Bentomat NS110I**