

# BPA-BENTOMAX NP (NEEDLE PUNCHED)

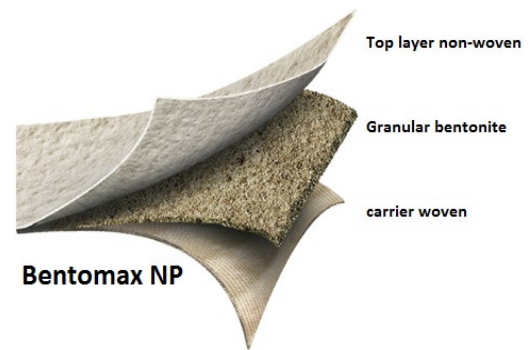
## Needle punched Bentonite Waterproofing liner GCL

### PRODUCT DESCRIPTION

BPA-Bentomax NP is a needle punched sodium-bentonite waterproofing membrane. BPA-Bentomax NP is specially designed as a cost-effective waterproofing membrane for below grade concrete structures.

### APPLICATION AREAS

Typical applications include blind-side waterproofing, backfilled concrete walls, structural slabs, property line construction including secant and contiguous piling, skin wall, metal sheet piling, shotcrete and stabilized earth retention walls. BPA-Bentomax NP is resistant to: nitrates, phosphates, chlorides, sulfates, lime and organic solvents. *Note: Where contaminated groundwater or saltwater conditions exist, use CEMtobent CS-Plus.*



### HOW DOES BPA-BENTOMAX NP WORK?

The sealing process of the bentonite lining system is activated immediately by penetrating water causing a controlled swelling of the bentonite clay within the matrix, forming a dense, impermeable waterproofing membrane.

### CHARACTERISTICS AND ADVANTAGES

- Seals small cracks in the concrete basements
- Demonstrates self-healing properties
- Higher puncture and tear resistance compared to conventional foils and coating
- Quick and easy to install without complicated welding equipment
- High compound shear strength
- Quality control tests to ensure consistent high quality
- May be installed pre- or post-applied

### APPROVALS

- German Standards - DIN EN 965, 964-1, DIN 18121, DIN 18132
- SKZ Accredited Testing Laboratory
- KIWA Accredited Testing Laboratory
- Independent Test on Product's Performance
- CE Marking



**PRODUCT DATA**

	Bentonite Waterproofing Liner BPA- BENTOMAX NP	Article No.
Dimensions/ Packaging	1,02x40 m (width x length); roll in black foil; Ø approx. 60 cm; approx. 197 kg/roll 1,70x40 m (width x length); roll in black foil; Ø approx. 60 cm; approx. 328 kg/roll	20-613 20-610
Storage	Bentonite Waterproofing Liner <b>BPA-Bentomax NP</b> should be stored off the ground in dry conditions.	

**TECHNICAL DATA**

Technical Data	Test Method (based on)	Unit	Value
Mass per unit area, total	DIN EN 965	g/m <sup>2</sup>	4.820
Masse per unit area, bentonite layer (sodium bentonite, granular)	DIN EN 965	g/m <sup>2</sup>	4.500
Mass per unit area, carrier woven (PP-slit film woven, beige)	DIN EN 965	g/m <sup>2</sup>	100
Mass per unit area, top layer non-woven (non-woven, beige)	DIN EN 965	g/m <sup>2</sup>	220
Thickness, total	DIN EN 964-1	mm	≥ 8
Max. tensile strength, md/cmd*	DIN EN ISO 10319 / ASTM-D-4595	kN/m	30 / 25
Expected lifetime		Jahre	>25

Properties	Average and Tolerance	
Tensile strength T <sub>max</sub>	MD 12 kN/m (-2 kN/m) CMD 12 kN/m (-2kN/m)	EN ISO 10319
Puncture test F <sub>p</sub>	2,3 kN (-0,3 kN)	EN ISO 12236
Water permeability	5x10 <sup>-9</sup> m <sup>3</sup> xm <sup>-2</sup> xs <sup>-1</sup> (+3 x 10 <sup>-9</sup> m <sup>3</sup> xm <sup>-2</sup> xs <sup>-1</sup> )	DIN EN 16416
Resistance	<b>Bentomax NP</b> has to be protected from humidity and water! Stable for at least 25 years in natural soils with 4< pH <9 and soil temperatures <25°C	



## **ADDITIONAL INFORMATION**

### **Surface**

Bentonite waterproofing liner BPA-Bentomax NP should be placed on a properly prepared flat surface that is free from voids > 20mm and free from construction debris. Cracks > 1 mm and/or offsets > 1 mm should be sealed with BPA-Bentomax NP before installing the bentonite waterproofing liner.

### **Methods of the sealing of overlappings**

- 🔒 Overlap edges of the membrane by 15cm and detail overlaps using BPA-Bentonite Powder.
- 🔒 Overlap edges of the membrane by 15 cm and seal with BPA-CEM 805 Adhesive.
- 🔒 Overlap edges of the membrane by 15 cm and seal with BPA-CEMtopaste bentonite paste.
- 🔒 In addition to the above nail fixings may be used to secure the overlaps if required

### **Preparation and general advice**

Surrounding air temperature: Minimum -5°C

The above mentioned temperatures constitute the generally valid area in which no additional measures need to be taken during application.

### **Environment and health**

This product does not represent a hazardous substance within the meaning of the EU Hazardous Substances Regulation. A safety data sheet for transport, placing on the market and use is available on the request.

### **Dangers and Safety**

The essential safety, toxicological, physical and ecological data for the handling of **BPA-Bentomax NP** can be taken from the product-specific safety data sheets.

### **Data**

All technical data stated in this product data sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

### **Legal advice**

All above mentioned Information concerning BPA-products, especially any recommendations and advices relating to the application and use of BPA products are given in good faith based on BPA's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with BPA's recommendations.

In practice, the differences in materials, actual site conditions and other factors outside are such that no warranty nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.

The user of the product must test the product's suitability for the intended application and purpose before proceeding with the full application of the products. BPA reserves the right to change the properties of its products without notice.

Users must always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request. All sales of BPA are subject to our current terms and conditions.

### **Local Restrictions**

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local product data sheet for the exact description of the application fields.

