



## Bentofix® Waterproofing

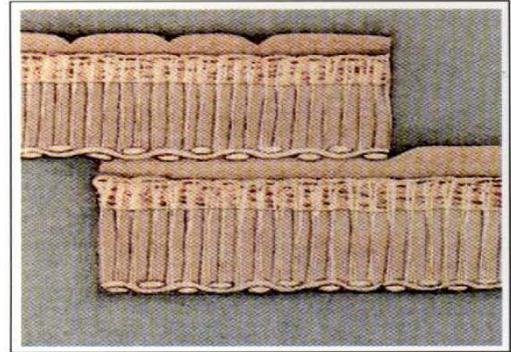
### Description

Bentofix® BFG 5000 is the original patented needle punched bentonite liner for civils application and basement waterproofing. It's proven performance and ease of installation, coupled with unique truly self sealing laps has made Bentofix® the favourite of contractors and designers throughout Europe. The ability of Bentofix® to be installed in virtually any weather means that costly to projects are also avoided. It is also an all in one solution with no hidden additional extras, such as tapes, protection boards and drainage geomembranes.

Bentofix® takes bentonite waterproofing to a new level of performance by offering versatile and speedy installation and is manufactured to ISO 9002 standards.

The Bentofix® BFG 5000 waterproofing membrane consists of a continuous layer of natural sodium Bentonite, sandwiched between a needle-punched polypropylene (PP) geotextile as the cover layer and a slit film woven geotextile as the carrier layer. The components are needle-punched uniformly together across the entire membrane. The cover layer of the membrane is impregnated during manufacture with an additional layer of natural sodium bentonite over its entire surface area to provide unique truly self sealing laps everywhere.

Bentofix® BFG 5000 is available in a range of roll sizes to cater for all applications.



### Advantages

- Natural sodium bentonite is an ideal sealing material due to its ability to swell when in contact with water.
- Sodium bentonite is inert and can be used in aggressive environments.
- The gel like consistency allows it to mould to the required profile.
- The outer layer non woven geotextile is impregnated with additional sodium bentonite over its entire surface for self sealing laps everywhere.
- The small particle size reacts immediately with water giving immediate effect.
- Robust and weather resistant. installation
- High puncture resistance.
- No other protection is required between the reinforced concrete and the backfill.
  - Will also act as a radon barrier when pre-hydrated with clean

### Standard Roll Sizes



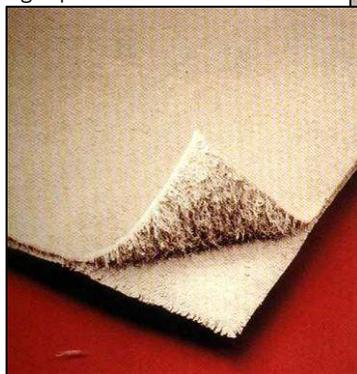
- Micro liner (1.20m x 2.42m) - Installation overlap of 10 to 15 cm  
For backfill areas or vertical applications.
- Mini liner (2.42m x 15m) - Installation overlap of 15 to 20cm  
For lining in areas with many obstructions or where access is restricted.
- Maxi liner (4.85m x 30m) - Installation overlap of 15 to 30cm  
For lining large open areas such as horizontal floor

### Uses

- Basement waterproofing.
- Tanking.
- Roof garden
- Landfill liner and cap

### Performance Data

Property	Test	Value
Puncture Force	EN ISO 12236	2,500N
Mass/Unit Area	EN 14196	5500g/m <sup>2</sup>
Permeability	DIN 16416	<2x10 <sup>-14</sup> m/s at 30kPa
Peel Strength	ASTM D6496	>60N/10cm
Montmorillonite Content (Bentonite)	XRD	approx. 90%



## **Contractor / Quantity Surveyor Take off Guidelines**

### **Bentofix® BFG 5000**

Continuous layer of natural Sodium Bentonite Sandwiched between a needle punched polypropylene geotextile as the cover layer and a slit film woven geotextile as the carrier layer. The components are needle punched uniformly together utilising the Naue owned patent. The cover layer of the membrane is filled during manufacture with Bentonite powder to facilitate impermeable overlap joints.

Rolls = 1.20m x 2.42m  
2.42m x 15m  
4.85m x 30m

Laid underslab and wall applications ~ 100mm laps required with ends staggered as much as possible. Laid on sand or lean-mix concrete under-blinding if required, against cast concrete or inside face of formwork / shuttering. Can also be applied directly to secant or contiguous piling.

Allow 10 - 12% of area for laps. Waste will be minimal as any off cuts can be utilised.



### **Bentostrip® Waterstop**

Swellable Bentonite based Waterstop tape utilising patented special coating to prevent premature swelling. Used for sealing of concrete construction joints cast in situ to provide watertight joints.

Reels = 10.00m (19mm x 25mm x 10m)  
1 Carton = 4 Reels  
1 Pallet = 28 Cartons = 1120 Linear Metres

Laid and pressed firmly onto the prepared centrally onto concrete surface running for the length of the joint. Fixed by nailing @ 300mm centres. The tapes are butt jointed to make continuous lengths and at angle intersections.

### **Bentofix® powder**

Powdered Wyoming Sodium Bentonite. Can be used dry for filling large voids or as a paste (with addition of water) for detailing around penetrations (pipes, piles, reinforcement, etc.)

Bags = 30kg (bulk density = 1000kg/m<sup>3</sup>)

Used generally in paste form in 40 x 40mm triangular fillets.  
Usage = 30-35 Linear Metres of 40 x 40mm fillet per 30 Kgs bag.

Please note that no additional Bentonite powder is required to lap the Bentofix® BFG 5000 because the top layer of the membrane is already impregnated with additional Bentonite powder for effective self sealing everywhere.

