BPA-SILVERSEAL NON-WOVEN WATERPROOFING MEMBRANE

“Lightweight” waterproofing system for the use in any water-sealing applications

PRODUCT DESCRIPTION

BPA-SilverSeal is a “lightweight” waterproofing system for the use in any water-sealing applications. BPA-SilverSeal is a needle punched non-woven fleece treated with water absorbing and water swelling polymer combined with a high-density PE-membrane. BPA-SilverSeal is a well-tested, double-sealing and self-healing system for below grade waterproofing.

APPLICATION AREAS

The use of Non-woven Waterproofing Membrane BPA-SilverSeal eliminates the need for all conventional waterproofing materials such as bituminous liners, coatings and synthetic membranes of all kinds. BPA-SilverSeal can be both pre-applied and post-applied.

HOW DOES BPA-SILVERSEAL WORK?

The unique sealing properties of BPA-SilverSeal are attained through two functions; the first sealing function lies in the high density PE-membrane, the second sealing function is only activated if the membrane is damaged and the incoming water activates the swelling non-woven geotextile. If water penetrates the membrane, the water reactive polymer swells thus creating an extremely tight, gel-like film which permanently seals the concrete structure.

CHARACTERISTICS AND ADVANTAGES

BPA-SilverSeal is a needle punched non-woven fleece impregnated with water absorbing and water swelling polymer combined with a high density PE-membrane
Tough and resistant, quick and easy to install
High compound shear strength
Can be installed in every season, independently of temperature and weather condition
Overlapping can be easily secured with CEM 805 adhesive
No need for complicated welding equipment or specially trained personnel
Quality controlled product
Self-healing properties by the pressure of the swelling polymers
Seals small cracks in the concrete by the pressure of the swelling SAP
Can be used in salt water conditions
Enormous water absorbing capacity and therefore enormous swelling and sealing capacity

APPROVALS

- CE-Certificate
- General Test Report
PRODUCT DATA

<table>
<thead>
<tr>
<th>Dimensions/ Packaging</th>
<th>BPA-SilverSeal Non-woven Waterproofing Membrane</th>
<th>Article-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x50 m roll; 5 rolls per pallet</td>
<td></td>
<td>21-120</td>
</tr>
</tbody>
</table>

Storage
Shelf life 5 years when stored clean, dry and shaded from sunshine.

TECHNICAL DATA

Type:
needle punched non-woven fleece impregnated with water absorbing and water swelling polymer combined with a high-density PE-membrane

Material:
Polypropylene fibres, white, impregnated

Class of robustness:
GRK 3 (dry)

Swelling Material:
Water absorbing, swelling polymer

Swelling pressure:
> 170 kN/m²

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>DIN EN 1849-2</td>
<td>g/m²</td>
<td>&gt; 450</td>
</tr>
<tr>
<td>Thickness (20 kPa)</td>
<td>DIN EN 1849-2</td>
<td>mm</td>
<td>&gt; 1,5</td>
</tr>
<tr>
<td>Maximus Tensile Strength MD</td>
<td>DIN EN 12311-2</td>
<td>N/Scm</td>
<td>&gt; 550</td>
</tr>
<tr>
<td>Maximum Tensile Strenght CD</td>
<td>DIN EN 12311-2</td>
<td>N/Scm</td>
<td>&gt; 900</td>
</tr>
<tr>
<td>Elongation at break MD</td>
<td>DIN EN 12311-2</td>
<td>%</td>
<td>&gt; 70</td>
</tr>
<tr>
<td>Elongation at break CD</td>
<td>DIN EN 12311-2</td>
<td>%</td>
<td>&gt; 55</td>
</tr>
<tr>
<td>Tear Resistance MD</td>
<td>DIN EN 12310-1</td>
<td>N</td>
<td>&gt;280</td>
</tr>
<tr>
<td>Water Tightness</td>
<td>DIN EN 1928 B</td>
<td>tight</td>
<td></td>
</tr>
<tr>
<td>Resistance to impact</td>
<td>DIN EN 12691</td>
<td>tight</td>
<td></td>
</tr>
</tbody>
</table>
ADDITIONAL INFORMATION

Surface
All surfaces onto which the BPA-SilverSeal Membrane is to be applied should be sound, solid and free from voids >12mm. All corners, upstands, pipe / service penetrations, etc. must be detailed correctly (please consult our Technical Department for further advice) prior to the application of the membrane.

Application
- BPA-SilverSeal should be fixed onto the prepared substrate with the open side (White) facing the concrete to be waterproofed. The closed side of BPA-SilverSeal Membrane consists of a silver PE-membrane which must face the water side.
- All overlaps must be detailed with BPA-CEM805 Adhesive.
- All overlaps should be a minimum of 50mm and should to be mechanically fixed using staples. Do not use fixings on the horizontal overlaps.
- Roll ends should be staggered by at least 300mm.
- Backfilling should be clean well compacted as defined by ASTM 1557.
- The contact pressure should be at least 150 kg/m².

General Advice
Service temperature: -30°C - 70°C. (The 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-SilverSeal 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.