PRODUCT DATA SHEET
SikaProof® A-12

FPO SHEET MEMBRANE FOR PRE-APPLIED FULLY BONDED BELOW GROUND WATERPROOFING

PRODUCT DESCRIPTION
SikaProof® A-12 is an embossed polyolefin FPO sheet membrane for pre-applied fully bonded below ground waterproofing of reinforced concrete structures. Membrane thickness 1,2 mm. SikaProof® A-12 is cold-applied without heat or open flames to prepared substrates or onto formwork before fixing reinforcement and concrete placement. The membrane has self-adhesive longitudinal strips for bonding overlap joints and is laminated with a unique sealant and a non-woven fleece backing layer which creates a bond with the cast concrete.

USES
SikaProof® A-12 may only be used by experienced professionals. Waterproofing and concrete protection for basements and other below ground concrete structures against ground water ingress. Suitable for use on:
• Reinforced concrete base slabs
• Reinforced concrete walls with both single and double-faced formwork
• Extension and reconstruction works
• Prefabricated structures
• Shotcrete structures

CHARACTERISTICS / ADVANTAGES
• Fully bonded to the reinforced concrete structure
• No lateral water underflow between the concrete structure and the membrane system
• Validated high watertightness
• High flexibility and crack-bridging
• Pre-applied, before fixing reinforcement and concrete placement

• Easy to install with fully adhered joints (no welding required)
• Cold-applied (no pre-heating or open flames)
• Good tear and impact resistant properties
• Temporarily resistant to weathering and UV-light during construction
• Highly durable and resistant to aging
• Resistant to aggressive elements in natural ground water and soil
• Can be combined with other approved Sika Waterproofing / Joint Sealing Systems
PRODUCT INFORMATION

Chemical Base

<table>
<thead>
<tr>
<th>Membrane Layer</th>
<th>Flexible Polyolefin (FPO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sealant grid</td>
<td>Polyolefin (PO)</td>
</tr>
<tr>
<td>Fleece layer</td>
<td>Polypropylene (PP)</td>
</tr>
</tbody>
</table>

Packaging

Rolls wrapped individually in a yellow PE-film.

<table>
<thead>
<tr>
<th>Product</th>
<th>Roll width</th>
<th>Roll length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SikaProof® A-12</td>
<td>1.00 m (3.28 ft) or 2.00 m (6.56 ft)</td>
<td>20 m (65 ft)</td>
</tr>
</tbody>
</table>

Appearance / Color

Light yellow sheet membrane, laminated with a white fleece layer

Shelf Life

18 months from date of production

Storage Conditions

Product must be stored in original unopened and undamaged sealed packaging in dry conditions and temperatures between +40 °F and +85 °F. Store in a horizontal position. Do not stack pallets of the rolls on top of each other, or under pallets of any other materials during transport or storage. Always refer to packaging.

Effective Thickness

<table>
<thead>
<tr>
<th>Total Thickness (-5% / +10%)</th>
<th>1.60 mm (0.06 in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membrane Thickness</td>
<td>1.20 mm (0.05 in)</td>
</tr>
</tbody>
</table>

Mass per Unit Area

0.31 lb/ft² (-5 % / +10 %)

TECHNICAL INFORMATION

Impact Strength

200 lbs (no puncture) (ASTM E154)

Resistance to Root Penetration

Pass (CEN/TS 14416)

Tensile Strength

<table>
<thead>
<tr>
<th>Machine direction</th>
<th>1200 psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross direction</td>
<td>1100 psi</td>
</tr>
</tbody>
</table>

Elongation

<table>
<thead>
<tr>
<th>Machine direction</th>
<th>≥700 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross direction</td>
<td>≥1000 %</td>
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</tbody>
</table>

Adhesion in Peel

55 lbs/in (ASTM D903)

Joint Peel Resistance

50 lbs/in (ASTM D1876)

Low Temperature Bend

Pass - no cracking at -29 °C (-20 °F) (ASTM D1970)

Water Vapor Transmission

3.45 x 10⁻⁹ g/Pa.S.m² (0.06 perms) (ASTM E96)

Water Tightness

Pass, up to 7 bar (234 ft) (ASTM D 5385)

Resistance to lateral water migration

Pass, up to 7 bar (234 ft) (ASTM D 5385 modified)

Durability of Water Tightness against Chemicals

Pass (28 d / +23 °C) (EN 1847)

Pass (Method B, 24 h / 60 kPa) (EN 1928)

Permeability to Radon

5.3±0.7 x 10⁻¹² m²/s (Certificate E-214/2011)

Permeability to Methane

140 ml/(m²-d) (±10 %) (ISO 7229)
SYSTEM INFORMATION

System Structure
The following system components must be used:
- SikaProof® A-12 sheet membrane
- SikaProof®-Tape-150 A self-adhesive tape for internal jointing
- SikaProof® ExTape-150 self-adhesive tape for external jointing
Ancillary products:
- SikaProof® A-12 Edge pre-formed L-shaped sheet membrane
- Accessories and complementary products are available to provide detailing and connection solutions.

APPLICATION INFORMATION

Substrate Moisture Content
No Standing Water (refer to important considerations for more information)

APPLICATION INSTRUCTIONS

EQUIPMENT
- Tape measure
- Marking pen
- Razor knife
- Scissors
- Pressure roller
- Clean lint-free cloth
- Metal straight edge for cutting
- Protective sheet for cutting

SUBSTRATE QUALITY

SikaProof® A-12 membrane must be applied on a sufficiently stable substrate to avoid movement during the construction works. Substrate surface must be smooth, uniform and clean. Large gaps and voids (> 12–15 mm) must be filled before membrane installation. Substrate can be damp or slightly wet, ponding water must be avoided. Suitable membrane fixing substrates include:
- Concrete blinding
- Formwork
- Rigid thermal insulation
- Plywood sheets / forms
- Sika Drainage Mat

APPLICATION METHOD / TOOLS

Installation procedure
Refer to current SikaProof® A Method Statement or Application Manual.
Installation method - General
After substrate conditions have been fulfilled, the waterproofing membrane is installed by loose laying with the fleece facing upwards or inwards onto horizontal / inclined substrates or fastening onto vertical substrates. Pre-formed L-shaped SikaProof® A-12 Edge sheets are used for corner and edge details. Overlap joints are sealed using cold-applied self-adhesive strips or tapes. No heat or open flames are required for installing any part of the membrane system.
Overlap and transverse joints
- All overlap and transverse joints must be bonded and sealed either with self-adhesive strips lengthways on the edge of the membrane sheet or using the SikaProof® ExTape-150 on the outside face and SikaProof® Tape-150 A on the inside face and all transverse joints.
- Detailing
Form all details and connections using the appropriate SikaProof® ancillary products outlined in the ‘Method Statement - SikaProof® A’
- Construction and expansion joints
For sealing these types of joints, use additional Sika® Joint Solutions
- Inspection and quality control of installation
A final inspection before placing concrete must be carried out to ensure the complete membrane system has been correctly installed, any damage repaired and fleeced surface is clean.
- Concrete placement
Place concrete directly onto or against the membrane within 30 days after installation.
- Formwork removal
After removing the formwork, all penetrations such as shuttering anchors, any membrane damage and construction joints must be sealed using the appropriate SikaProof® A-12 ancillary products or complementary Sika Waterproofing Systems.
- Backfilling protection
After formwork removal and before backfilling. SikaProof® A-12 system must be protected with an appropriate protection sheet as soon as possible or at the latest within 90 days.

AVAILABILITY/WARRANTY
- Method Statement - SikaProof® A
- Application Manual - SikaProof® A

LIMITATIONS

Installation work must only be carried out by Sika® trained, approved or competent contractors experienced in this type of application.
- Reference must also be made to the ‘Method Statement - SikaProof® A’ and ‘Application Manual -
Do not install SikaProof® A-12 membrane during continuous or prolonged rain or snowfall.

The substrate application surface must be clean with no standing water.

Do not use SikaProof® A-12 for applications in hot climates. Use the specially designed SikaProof® A-12 HC membrane.

If SikaProof® A-12 has to be applied under wet conditions or temperatures below +40 °F. Exceptions are possible under special circumstances with appropriate precautions. Contact Sika® Technical Services for more information.

Additional Sika® Joint Sealing Solutions (minimum Sika Hydrotite®) must be used for connections, around penetrations and for construction and expansion joints.

Concrete must be placed within 30 days after membrane system installation.

Adequate concrete quality (mix design and workmanship) is required to achieve optimum adhesion of the membrane system to the concrete.

SikaProof® A-12 membrane is not permanently UV and weather resistant. Therefore the membrane system must not be installed on structures where it will be permanently exposed to UV light.

After formwork removal, the membrane system (yellow membrane side) must be protected as soon as possible or at the latest before backfilling or within 90 days after installation.

To ensure the most suitable type of membrane is selected for the project, refer to section 4 ‘Project Design’ of the ‘Method Statement - SikaProof® A System’ or contact Sika® Technical Services for more information.

**BASIS OF PRODUCT DATA**

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

**OTHER RESTRICTIONS**

See Legal Disclaimer.