SikaProof® A (-05/-08/-12)
FULLY-BONDED FPO SHEET MEMBRANE WATERPROOFING SYSTEM, incorporating the innovative Sika® Grid Seal technology, for foundations and other below-grade, concrete structures

Description
SikaProof® A is a fully and permanently bonded, self-adhesive, composite sheet membrane waterproofing system for reinforced concrete structures. It consists of an embossed polyolefin (FPO) based membrane laminated with a sealant grid and a non-woven fleece. SikaProof® A is cold-applied and pre-applied, as it is installed without heat or open-flames, and before the steel reinforcement is fixed and the concrete is poured.

System components can include:
- SikaProof® A-05, membrane in rolls of widths 1 or 2 m
- SikaProof® A-08, membrane in rolls of widths 1 or 2 m
- SikaProof® A-12, membrane in rolls of widths 1 or 2 m
- SikaProof® A Edge sheets for perimeters and terminations
- SikaProof® Tape-150, self-adhesive, butyl rubber tape for internal jointing in 150 mm width
- SikaProof® ExTape-150, self-adhesive, butyl rubber tape for external jointing in 150 mm width
- SikaProof® Fix-Tape-50 self-adhesive tape or temporarily fixing membrane.
- SikaProof® MetalSheet self-bonding metal ‘flashing’ for pile head penetrations and similar

Where to Use
Damp-proofing, waterproofing and concrete protection for basements and other below ground concrete structures against ground water ingress. Suitable for use on:
- Below ground reinforced concrete slabs.
- Below ground reinforced concrete walls with both single and double-faced formwork.
- Extensions and reconstruction works.
- Prefabricated structures.

Advantages
- Cold-applied (no pre-heating or open flames) and pre-applied, before reinforcement is fixed and concrete is poured.
- Fully and permanently bonded to the reinforced concrete structure.
- No lateral water underflow or migration possible between the concrete structure and the membrane system.
- High watertightness tested according to many standards.
- Easy to install with fully adhered joints (no welding required).
- Temporarily resistant to weathering and UV-light during construction.
- Resistant to aging.
- High tensile strength and elongation values.
- High flexibility and crack-bridging abilities.
- Resistant to aggressive mediums in natural ground water and soil.
- Can be combined with other approved Sika waterproofing systems including: Sikaplan® WT membranes, FPO-based sheet waterproofing membranes Sikadur® Combiflex SG system, FPO-based joint sealing system.

Approvals/Certifications
- Product Declaration EN 13967 – Flexible sheets for waterproofing (type A&T).
- ASTM test report No. 1240-13 A to C, 05.02.2014
- CE Certificate No. 1349-CPD-065, 16.08.2011
- Function test, Wissbau, test report No. 2010-212 (SikaProof® A-08), 03.05.2011
- Function test, Wissbau, test report No. 2010-212-6 (Penetrations),
- Function test, Wissbau, test report No. 2012-212-7 (Pile head).
- Radon permeability, Slovak Medical University, (SikaProof® A-12) E-215/2011, 15.11.2011
- Radon permeability, Slovak Medical University, (SikaProof® A-08) E-214/2011, 07.12.2011
- German abP “allgemeines bauaufsichtliches Prüfzeugnis” MPA NRW, approval No. P-22-MPNRW-8600, 26.05.2011
- France - “Enquête Technique Nouvelle” Socotec no EAD9247/2 - CCT 57 SikaProof® A - 28/02/2013
- BRANZ appraisal, New Zealand, No. 852 (2014), 05.02.2014
Technical Data

SikaProof® A rolls are wrapped individually in a yellow PE-foil.

<table>
<thead>
<tr>
<th>Total Thickness</th>
<th>Roll Width</th>
<th>Roll Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SikaProof® A-05</td>
<td>1.00 mm (0.04 in)</td>
<td>1 m or 2 m (3.28 ft or 6.56 ft)</td>
</tr>
<tr>
<td>SikaProof® A-08</td>
<td>1.25 mm (0.05 in)</td>
<td>1 m or 2 m (3.28 ft or 6.56 ft)</td>
</tr>
<tr>
<td>SikaProof® A-12</td>
<td>1.60 mm (0.06 in)</td>
<td>1 m or 2 m (3.28 ft or 6.56 ft)</td>
</tr>
</tbody>
</table>

**Packaging**

SikaProof® A-05: 1.00 mm (0.04 in) 1 m or 2 m (3.28 ft or 6.56 ft) 30 m (98 ft)
SikaProof® A-08: 1.25 mm (0.05 in) 1 m or 2 m (3.28 ft or 6.56 ft) 25 m (82 ft)
SikaProof® A-12: 1.60 mm (0.06 in) 1 m or 2 m (3.28 ft or 6.56 ft) 20 m (65 ft)

**Colour / Appearance**

Light yellow sheet / laminated with white fleece layer

**Shelf Life**

18 months, in original, unopened packaging. Store dry between 5 and 30 °C (41 and 85 °F) in horizontal position. Protect from direct sunlight, rain, snow, ice, etc. and avoid stacking pallets of rolls on top of each other or under pallets of any other materials during storage or transport as this may result in damage.

**Application Temperature**

Minimum 5 °C (40 °F)
Maximum 35 °C (95 °F)

**Properties**

- **Visible defects EN 1850-02**: Pass
- **Straightness EN 1848-2**: ≤ 50 mm / 10 m (< 2 in / 32 ft)
- **Mass per unit area EN 1849-2**
  - SikaProof® A-05: 0.85 kg/m2 (0.142 lb/ft2) -5 / +10 %
  - SikaProof® A-08: 1.15 kg/m2 (0.24 lb/ft2) -5 / +10 %
  - SikaProof® A-12: 1.50 kg/m2 (0.31 lb/ft2) -5 / +10 %
- **Thickness ASTM D3767**
  - SikaProof® A-05: 1.1 mm 0.50 mm (0.02 in)
  - SikaProof® A-08: 1.35 mm 0.80 mm (0.03 in)
  - SikaProof® A-12: 1.7 mm 1.20 mm (0.05 in)
- **Tensile Strength ASTM D412**
  - ≥ 7.75 MPa (1125 psi) min.
- **Elongation ASTM D412**
  - ≥ 650 % min.
- **Water tightness to liquid water EN 1928**
  - Pass
- **Resistance to impact EN 12691**
  - SikaProof® A-05: ≥ 150 mm (≥ 6 in)
  - SikaProof® A-08: ≥ 250 mm (≥10 in)
  - SikaProof® A-12: ≥ 350 mm (≥14 in)
- **Puncture Resistance ASTM E 154**
  - ≥ 56.7 kg (125 lb)
  - ≥ 63.5 kg (140 lb)
  - ≥ 81.6 kg (180 lb)
- **Resistance to tear EN 12310-1**
  - (nail shank)
  - SikaProof® A-05: ≥ 375 N (78.7 lbf)
  - SikaProof® A-08: ≥ 400 N (89.9 lbf)
  - SikaProof® A-12: ≥ 600 N (134.9 lbf)
- **Resistance to static load EN 12730**
  - (Method B, 24 h/20 kg)
  - ≥ 20 kg (≥ 44 lb)
- **Durability of watertightness against aging EN 1296 (12 weeks)**
  - EN 1298 B (24 h/60 kPa)
  - ≥ 0.40 perms
- **Tensile Strength EN 1847 (28 days @ 23 °C)**
  - EN 1928 B (24 h/60 kPa)
  - (accelerated ageing in alkaline environ)
  - ≥ 125 N / 50 mm ≥ 125 MPa / 2 in
  - ≥ 200 N / 50 mm ≥ 200 MPa / 2 in
  - ≥ 300 N / 50 mm ≥ 300 MPa / 2 in
- **Joint Strength EN 12317-2**
  - (shear direction)
  - SikaProof® A-05: ≥ 0.40 perms
  - SikaProof® A-08: ≥ 0.35 perms
  - SikaProof® A-12: ≥ 0.25 perms
- **Water vapour Transmission ASTM E96 (-/+20 %)**
  - SikaProof® A-05: ≥ 0.40 perms
  - SikaProof® A-08: ≥ 0.35 perms
  - SikaProof® A-12: ≥ 0.25 perms
- **Reaction to fire EN ISO 11925-2**
  - Class E
- **Low Temperature Flexibility ASTM D1970**
  - Pass (no cracking @ -28 °C [-20 °F])
- **Water absorption ASTM D570 (-/+20 %)**
  - SikaProof® A-05: ≥ 2.2 %
  - SikaProof® A-08: ≥ 2.2 %
  - SikaProof® A-12: ≥ 1.2 %
- **Radon Gas Diffusion Coefficient**
  - SikaProof® A-08: 2.0 +/- 0.3 x 10-12 m²/s
  - SikaProof® A-12: 5.3 +/- 0.7 x 10-12 m²/s
  - SikaProof® A-08 joints: 6.1 +/- 1.1 x 10-12 m²/s
- **Methane Gas Permeability ISO 7229 (-/+10 %)**
  - SikaProof® A-08: 140 ml/m² x d
  - SikaProof® A-08 joints: 180 ml/m² x d
- **Water tightness and resistance to lateral water underflow ASTM D5385 (mod)**
  - SikaProof® A-05: Pass up to 7.0 bar
  - SikaProof® A-08: Pass up to 7.0 bar
  - SikaProof® A-12: Pass
- **VOC Content**
  - N/A
- **Chemical Resistance**
  - Consult Sika Canada

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.
**Surface Preparation**

Suitable substrates to fix the SikaProof® A membrane system onto include:
- Concrete or blinding concrete
- Formwork
- Rigid thermal insulation
- Timber frames
- Geotextile
- Plywood

The substrate for the SikaProof® A membrane needs sufficient stability to avoid movement during construction works.

A smooth, uniform and clean substrate surface is essential to prevent membrane damage. Close large gaps and voids (> 12 and 15 mm [>1/2 and 3/5 in]) before installation of the SikaProof® A membrane system.

The substrate surface can be damp or slightly wet, but must be free from standing (ponding) water.

<table>
<thead>
<tr>
<th><strong>Recommended System</strong></th>
<th><strong>Selection criteria</strong></th>
<th><strong>SikaProof® A-05</strong></th>
<th><strong>SikaProof® A-08</strong></th>
<th><strong>SikaProof® A-12</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical uses</strong></td>
<td>Damp-proofing / waterproofing / concrete protection</td>
<td>Waterproofing for civil engineering structures</td>
<td>Waterproofing for civil engineering structures</td>
<td></td>
</tr>
<tr>
<td><strong>Typical applications</strong></td>
<td>Slabs on ground / Walls / Precast elements</td>
<td>Base slabs / Walls / Precast elements</td>
<td>Base slab / Walls Precast elements</td>
<td></td>
</tr>
<tr>
<td><strong>Maximum head of water (-pressure)</strong></td>
<td>&lt; 5 m (0.5 bar)</td>
<td>&lt; 10 m (1.0 bar)</td>
<td>&lt; 15 m (1.5 bar)</td>
<td></td>
</tr>
<tr>
<td><strong>Crack-bridging ability</strong></td>
<td>Not tested</td>
<td>≤ 1 mm</td>
<td>≤ 2 mm</td>
<td></td>
</tr>
</tbody>
</table>

This list is not exhaustive it is intended as a general selection guide for specific design criteria. For more information and assistance on the selection and specification of the appropriate solution for your project, please contact Sika Canada.

**Application**

**General**

SikaProof® A is a cold-applied and pre-applied sheet membrane waterproofing system, installed before reinforcement is fixed and concrete is poured.

The joints of SikaProof® A membranes are not welded, they are fully adhered by self-adhesive strips on the membrane sheet or with SikaProof® adhesive tapes.

Only the following tools are required: tape measure, marker pen, membrane cutter and pressure roller.

**Installation**

Ensure the substrate is correctly constructed and prepared. Resultant substrates must be clean, stable and free from standing water or contaminants which would compromise adhesion.

Install the pre-formed SikaProof® A Edge sheet at the perimeters and terminations / connections.

Form the corners with the same pre-fabricated SikaProof® A Edge sheet and adhere them externally with SikaProof® ExTape-150 and internally with SikaProof® Tape-150.

Lay the SikaProof® A membrane on the horizontal and vertical surfaces using the 1 or 2 m (3.3 or 6.5 ft) width rolls (as appropriate) and adhere the joints with the self-adhesive strips lengthways. For cross joints use the SikaProof® ExTape-150 and SikaProof® Tape-150.

Form all details, such as pipe penetrations, shaft connections, pits, pile heads, expansion joints to match existing details, using the appropriate accessory products.

Finally, check all joints, connections and details, to ensure they are correctly and fully adhered with the SikaProof® ExTape-150 and SikaProof® Tape-150.

After the SikaProof® A membrane system has been installed, reinforcement can be fixed and concrete poured.

Following removal of all formwork penetrations, such as shuttering anchors, any damage to the membrane and any construction joints can be sealed on the external side of the membrane using either SikaProof® Patch-200 or the Sikadur® Combiflex SG System.
### Accessories
- SikaProof® A-08/-12 Edge, preformed sheet in L-shape, to form the waterproofing system edges, corners and connections
- SikaProof® Patch-200B, external membrane patching tape for sealing any local damage or penetrations, supplied in 200 mm width
- SikaProof® MetalSheet, to create special details, e.g. around pile heads/caps

### Limitations
- Bonding Surface Temperature: 5 °C min. / 35 °C.
- Bonding Surface Moisture: Dry, respect the dew point.
- Ambient Air Temperature: 5 °C min. / 35 °C.
- SikaProof® A membranes must only be installed by Sika Canada trained and approved contractors.
- Do not install SikaProof® A membranes during continuous or prolonged rainfall.
- SikaProof® A membrane is not permanently UV and weather resistant. The membrane sheets have to be protected against such exposure: For example, the structural concrete has to be placed onto the SikaProof® A membranes within four (4) weeks. For more detailed information, please refer to the current Method Statement. SikaProof® A membranes must not be installed on structures permanently exposed to UV light and weathering.
- For the fully bond of the SikaProof® A membrane system to the structural concrete an adequate concrete quality (mix design) is required, please refer to the current Method Statement.
- Additional joint sealing using SikaSwell® S-2 or SikaSwell® A is recommended for connections, around penetrations and in constructions joints.

### Health and Safety Information
SikaProof® A membranes are manufactured articles/finished goods that do not require Safety Data Sheets to be marketed, transported or applied at the jobsite. Based on our current knowledge, these products are not classified as dangerous and do not contain any hazardous materials. Always wear personal protective equipment (including safety goggles and gloves) to manipulate and install Sika® products.

**KEEP OUT OF REACH OF CHILDREN**

**FOR INDUSTRIAL USE ONLY**

The Information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions, within their shelflife. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The Information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

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