THE FULLY BONDED WATERPROOFING SYSTEM

Keep your basements durable and securely watertight

For further information, please call 01707 363834 or email waterproofing@uk.sika.com
WHAT IS SikaProof®-A?

AN INNOVATIVE WATERPROOFING SYSTEM THAT WILL SIMPLIFY YOUR WAY OF WORKING! SikaProof®-A is a pre-applied sheet membrane waterproofing system consisting of an embossed, highly flexible polyolefin membrane, with a special grid pattern of sealant and a designed non-woven fleece. This unique system produces a durable mechanical bond, which is created when the fleece is completely adhered to the fresh concrete. In addition, the unique grid system embedded in the sealant, prevents any lateral water underflow and migration between the SikaProof®-A membrane system and the structural concrete.

SikaProof®-A complies with BS 8102:2009 Type A construction. Typical applications include:
- Residential, commercial and office buildings
- Archives/libraries
- Underground parking
- Leisure facilities
- Tunnels and bridges

Our complete range of below ground waterproofing solutions includes:
- Sika® Watertight Concrete System - (Type B construction)
- Sika® CD System - cavity drainage system (Type C construction)

BS 8102:2009 suggests consideration be given to the use of dual systems. For example, Type A plus Type B protection where the assessed risks are deemed to be high or the consequences of a failure to achieve the required internal environment are too high. Sika are able to offer a complete solution in these circumstances.

SIKA SERVICES
Sika is ideally positioned to support our customers everywhere – right from the initial project design and detailing, through to successful installation and completion on site, such as:
- Design support
- Specification support (detailed drawings etc).
- Site support
- Maintenance support

THE SYSTEM BUILD UP:
1. Embossed FPO membrane
2. Sealant grid
3. Non-woven fleece
4. Structural concrete

Typical applications include:
- Residential, commercial and office buildings
- Archives/libraries
- Underground parking
- Leisure facilities
- Tunnels and bridges
HOW DOES IT WORK?

FULLY BONDED TO THE CONCRETE WITH Sika GRID SEAL TECHNOLOGY

SikaProof®-A is an innovative system that prevents any lateral water underflow and migration between the waterproofing membrane and the structural concrete.

Sika Grid Seal Technology is at the core of SikaProof®-A. It consists of a special sealant that is factory applied in a grid pattern, which creates ‘mini watertight compartments’. This grid seals and blocks any lateral water underflow, even in the event of any local damage to the membrane.

The grid itself is also protected by the specially designed fleece that is laminated into the sealant grid. This fleece forms a full and durable mechanical bond between the SikaProof®-A membrane and the hardened concrete.

HOW DOES IT WORK?

Sika Proof®-A membrane is joined and connected to one another using SikaProof® adhesive strips and tapes. There is no welding required on-site and no special tools. However, heating or open flames are required. This ensures that the installation is not only fast and efficient, but also secure.

The SikaProof®-A membrane has a self-adhesive strip on one side, in a longitudinal direction, that allows simple bonding of the overlaps. For adhering of details and cross joints, specially designed tapes are used. The installation of the SikaProof®-A waterproofing system with these strips and tapes reduces time and overall cost.

BONDING AND SEALING OF SikaProof®-A MEMBRANE JOINTS

SikaProof® Tapes for membrane jointing and detailing:
- SikaProof® Tape-150 (internally applied)
- SikaProof® ExTape-150 (externally applied)

All recommended jointing and detailing solutions using SikaProof® Tape-150 and SikaProof® ExTape-150 are tested to be watertight.

TESTED AND APPROVED

The SikaProof®-A waterproofing system has been tested in accordance with various standards and is CE certified for European markets. All the necessary detailing solutions, including movement and construction joints, pipe penetrations and pile head connections, have also been tested and approved.

This testing includes:
- ASTM D 5385
- CE certification accordance with EN 1996
- Additional function tests for detail solutions

No lateral water migration in the ASTM testing

Internal jointing detail with SikaProof® Tape-150

Finished internal jointing detail
SikaProof®-A can generally be used to waterproof all types of reinforced concrete basements and other below ground structures. Typical projects are residential and industrial buildings such as housing, commercial, leisure facilities, manufacturing plants and warehouses. Engineered structures, such as retaining walls, tunnel galleries, potable water tanks, waste water storage treatment structures and tanks, can also be waterproofed externally with the SikaProof®-A system.

For these projects SikaProof®-A can be used in different ground conditions including various levels of groundwater from damp soil, to percolating water or water under hydrostatic pressure. Additionally it can be exposed to different levels of other aggressive conditions.

**WHERE CAN IT BE USED?**

**Damp-proofing**
- Protection against:
  - Rising humidity through capillary effect
  - Percolating water

**Concrete Protection**
- Protection against:
  - Various gases such as radon and methane
  - Different types of chemicals in solution (sulphate, chloride, etc)
  - Humic acid

**Waterproofing**
- Resistant to:
  - Water under hydrostatic pressure
  - Lateral water underflow and migration for one or multi-storey basements

**GENERAL APPLICATIONS**

**CONSTRUCTION ELEMENTS**

**Base Slabs**
- For special details, such as shafts, pipe penetrations or pile heads, approved solutions are provided for the SikaProof®-A system.

**Walls, Single and Double Face Formwork**
- The self-adhesive strips and tapes allow for an easy and secure bonding and sealing of the SikaProof®-A membrane system in vertical sections leading to no delay to striking formwork. There are approved solutions available for special details, such as for the shuttering anchors of double face formwork.

**Prefabricated Elements**
- The advantages of precast elements can be further improved by installing a waterproofing membrane system in the prefabrication process. The SikaProof®-A membrane can be easily installed in the factory. On-site the waterproofed elements enable a fast fitting, reducing installation time and costs.
WHAT ARE THE ADVANTAGES OF SikaProof®-A?

THE SikaProof®-A MEMBRANE SYSTEM HAS SPECIFIC ADVANTAGES COMPARED WITH TRADITIONAL WATERPROOFING SOLUTIONS. It provides very specific benefits for all parties involved on a project: owners, specifiers and contractors.

ADVANTAGES FOR OWNERS AND INVESTORS
Durable functionality (dry basement), cost efficiency and high resistance against specific conditions are key issues for owners and investors. SikaProof®-A membrane system is based on a well-proven membrane used since the early 1990’s in tunnel waterproofing. With this long-term experience of material performance under harsh conditions, SikaProof®-A delivers long life expectancy, even in aggressive conditions such as sea-water, soil with a high sulphate content or humic and other soil acids.

ADVANTAGES FOR DESIGN ENGINEERS/SPECIFIERS
The highly effective mechanical and chemical performance of SikaProof®-A is approved in accordance with European and American standards. Rigorously tested detailing solutions for joints and penetrations provide the safety required by design engineers and specifiers. This allows them to use the SikaProof®-A system on a variety of projects with different waterproofing requirements.

ADVANTAGES FOR CONTRACTORS
Due to the quick and simple jointing of the membranes with self-adhesive strips and tapes, SikaProof®-A is a very user-friendly waterproofing system that is fast and secure to install. Compared with traditional waterproofing solutions, it requires no additional investments in special tools or equipment, no heating or open flames and no additional protection of the membrane system is required during backfilling. All this results in time and cost savings on-site which are key considerations for reducing overall project costs.

ADVANTAGES
Performance
- No lateral water migration in the event of damage
- Resistant to aggressive mediums in soil
- Provides protection against radon gas
- Stress crack resistance
- Crack bridging ability

Cost effective
- Fast installation: layout, jointing and detailing
- Reduced membrane joints with wider rolls
- No additional protection screed required

High quality
- Prefabricated - defined minimum layer thickness
- Highly flexible membrane system
- Long-term experience with FPO membrane
- Longer life expectancy vs other plastic products

Tested and approved
- According to American and European Standards
- Complete system testing (inc. details and joints)
- Highly resistant to ageing

Easy and secure installation
- No welding, no open flames, no priming
- Simple adhered joints and details
- No special tools or equipment required

Sustainability
- Less waste, no release liner
- Highly durable with long life expectancy
- No segregation, wash-out or leaching
For successful waterproofing with the SikaProof®-A system, the owner's detailed requirements have to be taken into consideration to select the appropriate SikaProof®-A system in the early stages of the project design phase. For efficient installation during the construction phase on-site, a defined procedure and schedule of the works not to be precluded, details, such as penetrations, pile heads, joints and corners, have to be planned and installed carefully according to Sika’s installation procedure.

**INSTALLATION PROCEDURE:**

1. **Substrate preparation**
2. **Apply SikaProof®-A Edge around the perimeter**
3. **Form the corners with the SikaProof®-A Edge sheet**
4. **Lay out the SikaProof®-A membrane sheet on the surface**
5. **Prepare all joint connections and details**
6. **Adhere all joints and connections with SikaProof® Tape-150 and SikaProof® ExTape-150**
7. **Reinforcement and concrete work**
8. **Additional sealing of structural joints and penetrations with Sikaplas® Patch 200 or Sikadur®-Combiflex® SG System**

**HOW SHOULD IT BE INSTALLED?**
SikaProof®-A SYSTEM COMPONENTS

THE SikaProof®-A SYSTEM CONSISTS OF A RANGE OF MEMBRANES AND ACCESSORIES.
The membrane comes in various widths and thickness, with special adhesive tapes for bonding and sealing joints and accessories for special detailing solutions.

SikaProof®-A MEMBRANES
With one-sided self-adhesive strip

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical use</td>
<td>Waterproofing for compartmentalised structures</td>
<td>Waterproofing for civil engineered structures</td>
<td>Waterproofing for civil engineered structures</td>
</tr>
<tr>
<td>Recommended maximum water head</td>
<td>&lt;3m (0.3 bar)</td>
<td>&lt;5m (0.5 bar)</td>
<td>&lt;10m (1.0 bar)</td>
</tr>
<tr>
<td>Maximum thickness of concrete structure</td>
<td>0.10-0.25m</td>
<td>0.05m</td>
<td>1.00m</td>
</tr>
</tbody>
</table>

SikaProof®-A TAPES
For joints and detailing
- SikaProof®-A-150 is a self adhesive tape in 150mm width for internal sealing and jointing of all detailing and transverse/cross joints
- SikaProof®-ExTape-150 is a self adhesive tape in 150mm width for external jointing with split release liner for easier application

SikaProof®-A ACCESSORIES
- SikaProof®-A-12 Edge is a prefabricated L-shaped edge membrane in 1m width for fast installation of edges and corners on site
- SikaProof®-A Patch-200 is an externally applied self adhesive membrane patch in 200mm width for additional post-construction sealing of joints, penetrations or damage to the membrane
- SikaProof®-A MetaSheet is a pre fabricated metal sheet for sealing around pile head penetrations
- SikaProof®-A FixTape-50 is a tape strip in 50mm width for temporary application and for internal repair of local damage

Sika® waterbars
Externally and integrally installed, preformed waterstops for making both construction and movement joints watertight in reinforced concrete structures.
Externally applied waterstops are fixed directly onto the SikaProof®-A membrane with the SikaProof® FixTape-50.

Sikadur®-Combiflex® S5 System
An adhesive tape system for watertight sealing of many different types of difficult and uneven sized construction or movement joints.
Sikadur®-Combiflex® S5 System is fully compatible with the SikaProof®-A membrane system and can be used to seal external joints between precast elements with pre-applied SikaProof®-A membrane or to seal transitions of base slab and precast wall elements.

SikaSwell® A Profiles
High-performance, hydrophilic, swelling profiles for sealing construction joints.
SikaProof®-A Profiles can also be used in combination with the SikaProof®-A system as an additional back-up solution around complex penetrations, for example pipe / service entries.

SikaFuko® HOSES AND Sika® Injection MATERIALS
Re-injectable injection hoses and injection materials including micro-cement, acrylic and epoxy resin systems for sealing construction joints.
These re-injectable hoses can also be used in combination with the SikaProof®-A system as a controllable back-up solution, for example where future settlement is anticipated.

IN ADDITION TO THE SikaProof®-A SYSTEM, Sika PROVIDE A FULL RANGE OF WATERPROOFING SOLUTIONS THAT CAN BE USED FOR SPECIFIC REQUIREMENTS AND CONDITIONS.

Systems we provide are:
- Sikaplan® - compartmentalised membrane system
- Sikalastic® - liquid applied membrane
- Sika® Watertight Concrete
- Sika® Cavity Drainage System

Sika also provides a complete range of joint sealing solutions for watertight construction including waterstops, hydrophilic profiles and injection hoses.

Sika® Waterbars
Externally and integrally installed, preformed waterstops for making both construction and movement joints watertight in reinforced concrete structures.
Externally applied waterstops are fixed directly onto the SikaProof®-A membrane with the SikaProof® FixTape-50.

Sikadur®-Combiflex® S5 System
An adhesive tape system for watertight sealing of many different types of difficult and uneven sized construction or movement joints.
Sikadur®-Combiflex® S5 System is fully compatible with the SikaProof®-A membrane system and can be used to seal external joints between precast elements with pre-applied SikaProof®-A membrane or to seal transitions of base slab and precast wall elements.

SikaSwell® A Profiles
High-performance, hydrophilic, swelling profiles for sealing construction joints.
SikaProof®-A Profiles can also be used in combination with the SikaProof®-A system as an additional back-up solution around complex penetrations, for example pipe / service entries.

SikaFuko® HOSES AND Sika® Injection MATERIALS
Re-injectable injection hoses and injection materials including micro-cement, acrylic and epoxy resin systems for sealing construction joints.
These re-injectable hoses can also be used in combination with the SikaProof®-A system as a controllable back-up solution, for example where future settlement is anticipated.
SIKA FULL RANGE SOLUTIONS
FOR CONSTRUCTION:

WATERPROOFING      CONCRETE      REFURBISHMENT      DISTRIBUTION

SEALING AND BONDING  FLOORING      ROOFING       INDUSTRY

FOR MORE INFORMATION ON WATERPROOFING:

WHO WE ARE
Sika Limited is part of the global Sika Group, specialising in the
manufacture and supply of chemical based products for construction
and industry. Sika is a world-leader in its field with subsidiaries in more
than 80 countries, 15,200 employees, and annual sales of CHF 5.1 billion
(£3.4bn). We are also committed to providing quality, service, safety and
environmental care.

In the UK, we provide market-leading solutions for concrete,
waterproofing, roofing, flooring, refurbishment, sealing & bonding, and
industry, and have manufacturing sites in Welwyn Garden City, Preston,
and Leeds with 700 employees and a turnover of £190 million.

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. 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 written
recommendations, or from any other advice offered. The proprietary rights of third parties must
be observed. All orders are accepted subject to our current terms of sale and delivery. Users should
always refer to the most recent issue of the Product Data Sheet for the product concerned, copies
of which will be supplied on request.