The Fully Bonded Waterproofing System –
Keep your basements durably and securely watertight!

- What is SikaProof® A?
- How does it work?
- Where can it be used?
- What are the advantages of SikaProof® A?
- How should it be installed?
- SikaProof® A system components
- Additional Sika waterproofing systems
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 specially designed non-woven fleece. This unique system build-up creates a full and durable mechanical bond effect, which is created when the fleece is completely embedded in the fresh concrete. In addition, the sealant prevents any lateral water underflow and migration between the SikaProof® A membrane system and the structural concrete.

The SikaProof® A system is applied easily before the reinforcement is installed and the concrete is poured. Joints are sealed by special adhesive tapes. This system is typically used for the waterproofing, damp-proofing and concrete protection of concrete basements – particularly for new constructions but also for extensions, some remedial works and pre-fabricated constructions.

The system build up:

1. Embossed PP membrane
2. Sealant grid
3. Non-woven fleece
4. Structural concrete

The SikaProof® A system is applied easily before the reinforcement is installed and the concrete is poured. Joints are sealed by special adhesive tapes.
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 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 sealant grid seals and blocks any lateral water underflow, even in the event of any local damage to the membrane. The sealant grid itself is also protected by the specially designed fleece that is laminated into the grid sealant. This fleece is also embedded completely into the fresh concrete and creates a full and durable mechanical bond between the FPO membrane layer of *SikaProof® A* and the cured concrete.

**Bonding and sealing of SikaProof® A membrane joints**

The *SikaProof® A* membranes are easily joined and connected to each other using SikaProof adhesive strips and tapes. There are no welding procedures required on-site, plus no special tools, heating or open flames are required either. This ensures not only that the installation is 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 adhering of the overlaps. For adhering of detailing and transverse / cross joints, specially designed tapes are used. The installation of the *SikaProof® A* waterproofing system with these strips and tapes reduces time and hence overall cost.

**Tested and approved**

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

This testing includes:
- ASTM D 5385
- CE certification according to EN 13967
- Additional function tests for detail solutions

**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 up to a certain level of water pressure.
Where Can it be Used?

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 residential housing, commercial, retail and public buildings, stadiums and leisure facilities, industrial and manufacturing plants and warehouses etc. Engineered structures i.e. retaining walls, tunnel galleries, potable water tanks, waste water storage and treatment structures and tanks etc.

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 influences.

General applications

Damp proofing

Against
- Rising humidity through capillary effect
- Percolating water, for flat slab foundations (slab on ground), column footings, strip foundations and walls.

Concrete protection

Protection against
- Various gases such as radon and methane
- Different types of chemicals in solution (sulphate, chloride, etc.)
- Humic acid for all types of construction elements.

Waterproofing

Resistant to
- Water under hydrostatic pressure
- No lateral water underflow and migration for deep, one or multi storey basements.

Construction elements

Base slabs

For special details, such as shafts, pipe penetrations or pile heads etc. approved solutions are provided for the SikaProof® A system. Installation is easy and fast, using the flexible FPO membrane in 2.0 m width in the horizontal area.

Walls, single and double face formwork

The self-adhesive strips and tapes allow an easy and secure bonding and sealing of the SikaProof® A membrane system in the vertical area. There are approved solutions available for special details, such as for the shuttering anchors of double face formworks.

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 to traditional waterproofing solutions. It provides very specific benefits for all parties involved on a project: Owners, Specifiers and Contractors.

### Advantages for Owners and Investors

- **Durability (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 seawater 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, penetrations, etc. 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 to traditional waterproofing solutions, it requires no additional investments in special tools or equipment, no heating or open flames and no actions for protecting the membrane system. All this results in time and cost savings on site which are key elements in 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

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

**Total cost efficiency**
- Fast installation: lay out, jointing, detailing-finished
- Reduced membrane joints with 20m x 2m width rolls
- No additional protection screed required
- Additional sealing of external joints and penetrations with SikaProof® Patch-200, Tape 150 or Sikadur-Combiflex® SG System

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

**High quality**
- Prefabricated – define minimum layer thickness
- High flexible membrane system
- Long-term experience with FPO membrane

**Sustainability**
- Less waste, no overall release liner
- Highly durable with long life expectancy
- No segregation, wash-out or leaching
How Should it be Installed?

For successful waterproofing with the SikaProof® A system, the Owner’s detailed requirements have to be taken into consideration to select the appropriate SikaProof 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 has to be prepared. Details, such as penetrations, pile heads, joints and corners, etc. have to be planned and installed carefully according to Sika’s installation procedure.

Installation procedure:

1. **Substrate Preparation**
2. Install the perimeter with the preformed SikaProof® A Edge
3. Form the corners with the SikaProof® A Edge sheet
4. Lay out the SikaProof® A membrane sheets 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 external joints and penetrations with Tape 150 or Sikadur-Combflex® 3G System

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Walls, single formwork

Corner details

Walls, double formwork

Expansion joints

Construction joints

Pipe penetrations

Lift shafts

Pile heads
Sika® Proof® A System Components

Sika® Proof® A system consisting of a range of membranes in various thicknesses and widths, special adhesive tapes for bonding and sealing joints and accessories for special detailing solutions.

Sika® Proof® A membranes
in 2m width rolls with one-sided self-adhesive strip

- Sika® Proof® A-12
  1.2 mm thick membrane, for waterproofing and concrete protection with medium to high stress and water pressure requirements.

Sika® Proof® A tapes
for joints and detailing

- Sika® Proof® Tape-150
  self-adhesive tape in 150 mm width for internal sealing and jointing of all detailing and transverse / cross joints.

- Sika® Proof® ExTape-150
  self-adhesive tape in 150 mm width for external jointing with split release liner for easier application.

Sika® Proof® A accessories

- Sika® Proof® A-12 Edge
  prefabricated L-shaped edge membranes in 1 m width for fast installation of edges and corners on site (500 mm x 500 mm).

- Sika® Proof® MetalSheet
  laminated metal sheet for sealing around pile head penetrations.

- Sika® Proof® FixTape-50
  Sika® Proof® FixTape-50

Sika® Proof® A membranes, 1.0 and 2.0 m width

Additional Sika Waterproofing Systems

In addition to the Sika® Proof® A system, there are many additional products and systems that can be used for specific waterproofing requirements and conditions. Sika® also provides a complete range of joint sealing solutions for water-tight concrete construction including waterstops for construction and movement joints, hydrophilic profiles and injection hoses for construction joints, plus adhesive sealing tapes for use in both construction and movement joints. All the Sika® watertight joint sealing solutions are fully compatible with one another and therefore can be used with the Sika® Proof® A system – for a totally secure and watertight basement.

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

- SikaDur-Combiflex® SG System
  An adhesive tape system for watertight sealing of many different types of difficult and uneven sized construction or movement joints.
  SikaDur-Combiflex® SG system is fully compatible with the Sika® Proof® A membrane system and can be used to seal external joints between precast elements with pre-applied Sika® Proof® 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. Sika® Proof® A profiles can also be used in combination with the Sika® Proof® 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 Sika® Proof® A system as a controllable back-up solution, for example where future settlement is anticipated.
Sika is a leading Swiss company, globally active in specialty chemicals. Our local presence worldwide links us directly with customers and ensures the success of Sika and its partners. Every day highly motivated people strive to provide the best customer service.