



# WATERPROOFING

## SikaProof® A

WATERPROOFING MEMBRANE SYSTEM TECHNOLOGY

**BUILDING TRUST**  
**CONSTRUIRE LA CONFIANCE**





# THE FULLY BONDED WATERPROOFING SYSTEM

Keep your concrete foundations and securely watertight.

**For further information, please call your local Sika Technical Sales Representative  
at 1-800-933-SIKA (7452).**



# CONTENT

<b>4</b>	What is SikaProof® A?
<b>6</b>	How does it work?
<b>8</b>	Where can it be used?
<b>10</b>	What are the advantages of SikaProof® A?
<b>12</b>	How should it be installed?
<b>14</b>	SikaProof® A system components
<b>15</b>	Additional Sika waterproofing systems



Ground slab



Walls, single or double face formwork

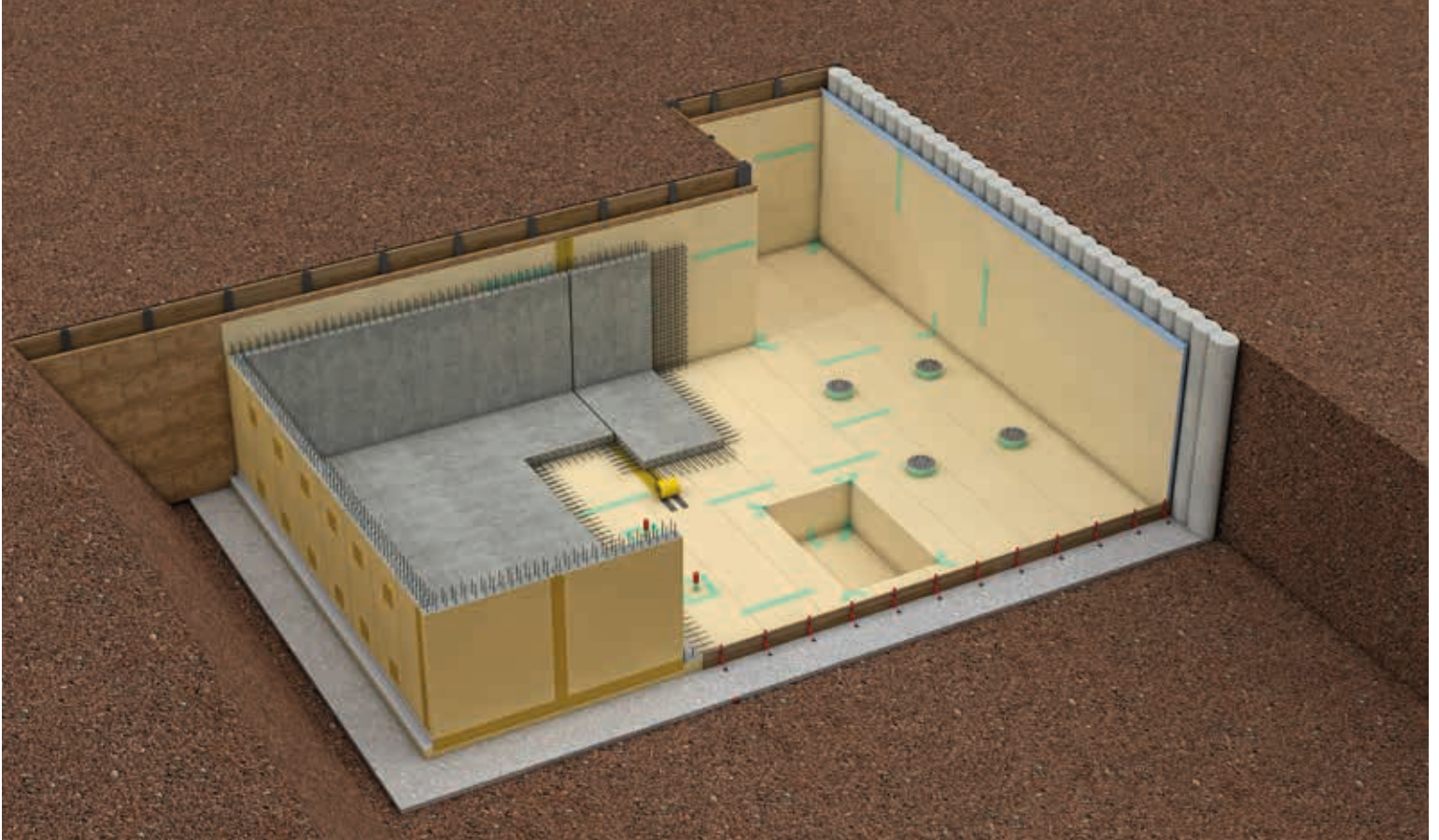


Prefabricated elements

# 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.



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 prefabricated constructions.

Typical applications include:

- Residential, commercial and office buildings
- Archives/libraries
- Underground parking
- Leisure facilities
- Tunnels and bridges

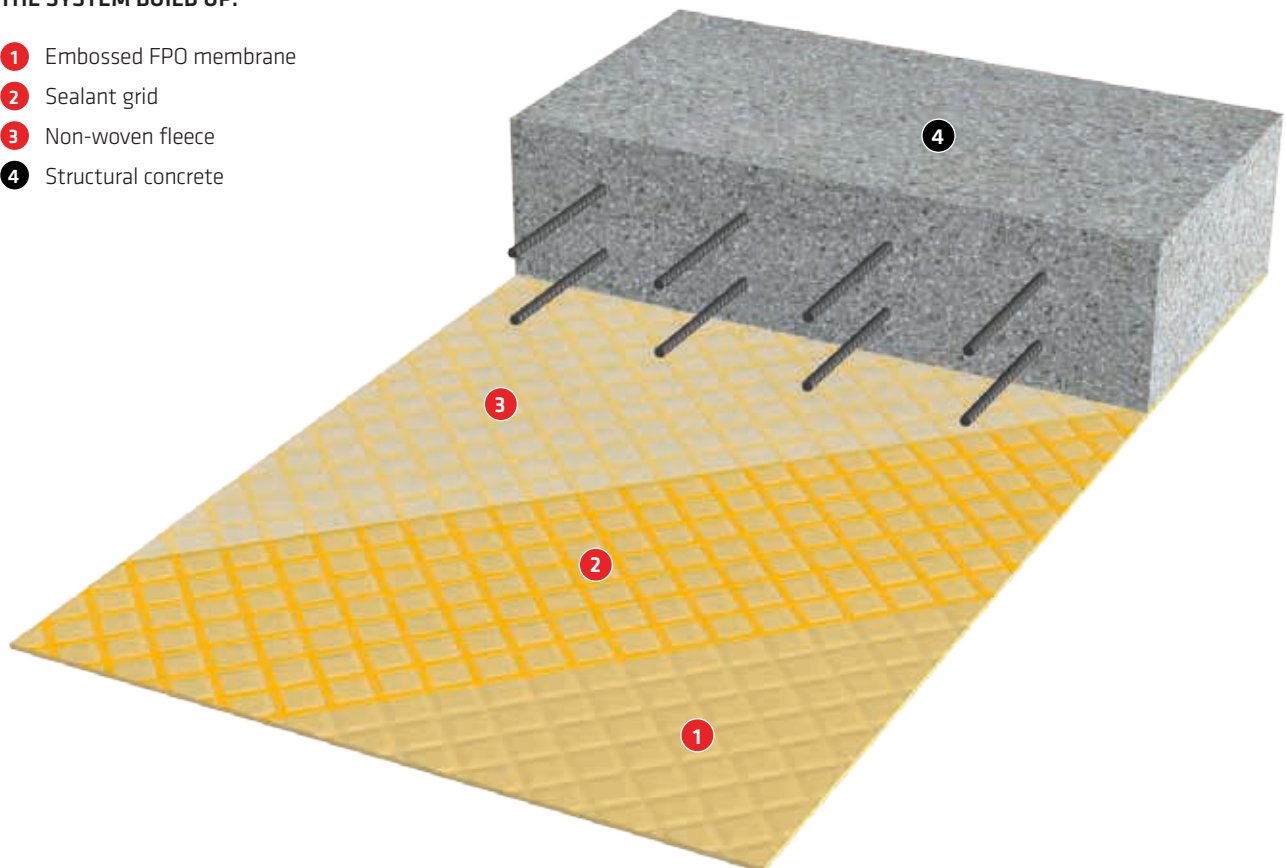
#### SIKA SERVICES

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



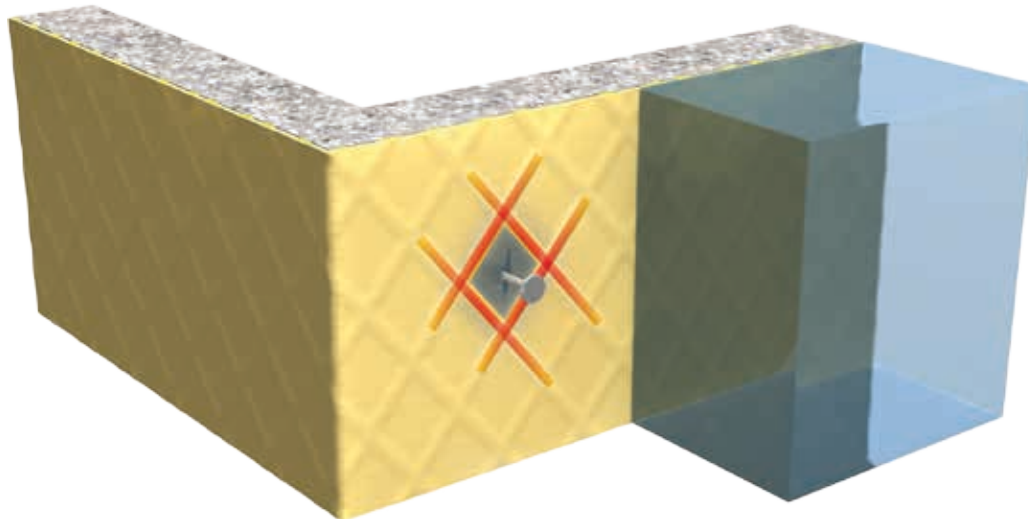
# HOW DOES IT WORK?

## 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.

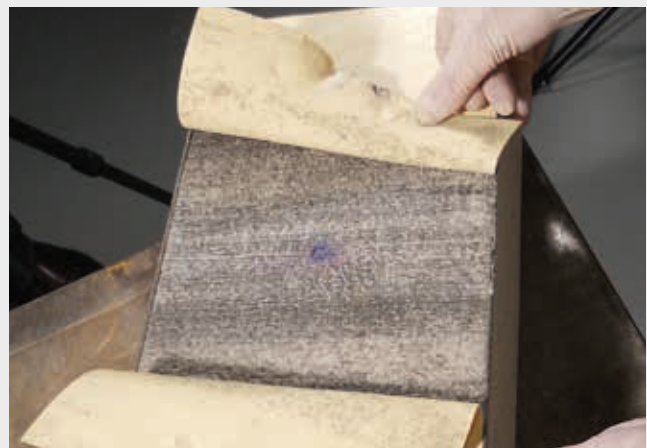


## TESTED AND APPROVED

The SikaProof® A waterproofing system has been tested in accordance with various standards including ASTM 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 D5385
- CE certification accordance with EN 13967
- Additional function tests for detail solutions



No lateral water migration in the ASTM testing



### BONDING AND SEALING OF SikaProof® A MEMBRANE JOINTS

The SikaProof® A membranes are easily 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.

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.



Internal jointing detail with SikaProof® Tape-150



Finished internal jointing detail

# WHERE CAN IT BE USED?

SikaProof® A can generally be used to waterproof all types of reinforced concrete foundations 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 waterproofered 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.

## GENERAL APPLICATIONS

### 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





## 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



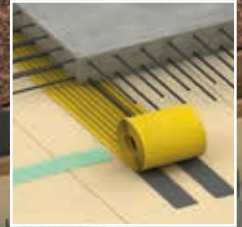
# HOW SHOULD IT BE INSTALLED?

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, have to be planned and installed carefully according to Sika's installation procedure.

Walls, double formwork



Expansion joints

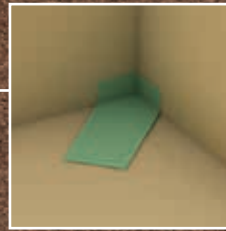


## INSTALLATION PROCEDURE:

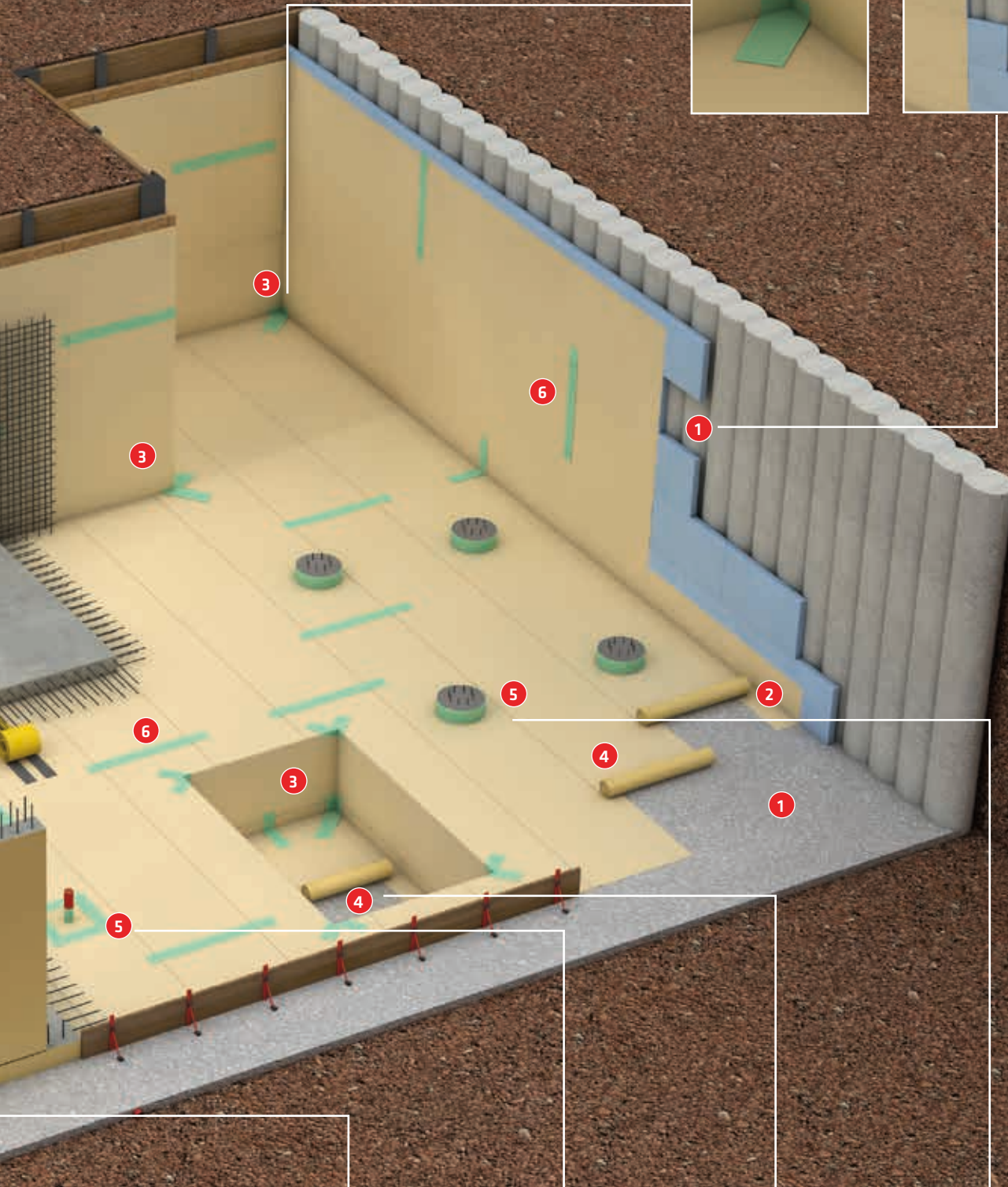
- 1 Substrate preparation
- 2 Apply SikaProof® A Edge around the perimeter
- 3 Form the corners with the SikaProof® A Edge sheet
- 4 Lay out the SikaProof® A membrane sheets on the surface
- 5 Prepare all joint connections and details
- 6 Adhere all joints and connections with SikaProof® Tape-150 and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



Corner details



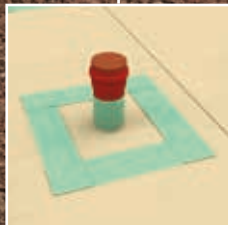
Walls, single formwork



Construction joints



Construction joints



Pipe penetrations



Lift shafts



Pile heads



# 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

GENERAL CRITERIA	SikaProof® A-05	SikaProof® A-08	SikaProof® A-12
Typical use	Damp-proofing/ concrete protection/ waterproofing	Waterproofing for civil engineered structures	Waterproofing for civil engineered structures
Recommended maximum water head	≤ 5 m (≤ 0.5 bar)	≤ 10 m (≤ 1.0 bar)	≤ 15 m (≤ 1.5 bar)
Radon & Methane & CO <sub>2</sub> Gas Barrier	Not tested	Tested	Tested



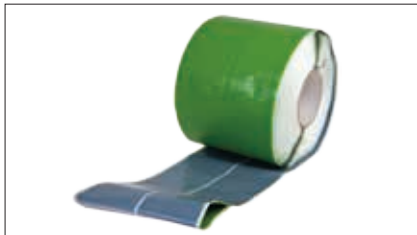
### SikaProof® A TAPES

For joints and detailing

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



SikaProof® Tape-150



SikaProof® ExTape-150

### SikaProof® A ACCESSORIES

- SikaProof® A-12 Edge is a prefabricated L-shaped edge membrane in 1 m width for fast installation of edges and corners on site.
- SikaProof® Patch-200B is an externally applied self adhesive membrane patch in 200 mm width for additional post-construction sealing of joints, penetrations or damage to the membrane.



SikaProof® A-12 Edge



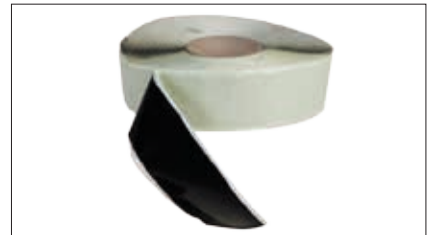
SikaProof® Patch-200B

### SikaProof® A ACCESSORIES

- SikaProof® MetalSheet is a laminated metal sheet for sealing around pile head penetrations.
- SikaProof® FixTape-50 is tape strip in 50 mm width for temporary application and for internal repair of local damage.



SikaProof® MetalSheet



SikaProof® FixTape-50



# ADDITIONAL SIKA WATERPROOFING SYSTEMS

**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:

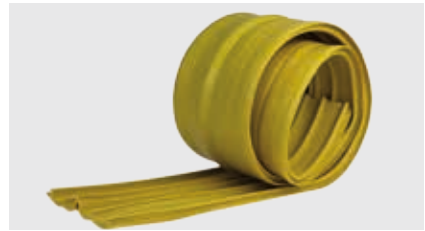
- Sikaplan®: Compartmentalised membrane system
- Sikalastic®: Liquid-applied membrane
- SikaBit S-60: Self-adhering sheet waterproofing membrane
- Sikagard® E.W.L.: Liquid-applied polyurethane liner
- Sika® Watertight Concrete
- Sika® Cavity Drainage System

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

## **Sika® Waterbars and Waterstops**

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® 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 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.

SikaSwell®-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 SOLUTIONS FROM ROOF TO FOUNDATIONS

## Roofing Systems



**Sarnafil®**  
**Sikaplan®**  
**Sikalastic®**

## Concrete Production



**Sika® ViscoCrete®**  
**Sika® Retarder®**  
**Sika® AER<sup>CA</sup>**

## Joint Sealing



**Sikaflex®**  
**Sikasil®**  
**Sikadur® Combiflex**

## Grouting and Anchoring



**SikaGrout®**  
**Sikadur®**  
**Sika AnchorFix®**

## Concrete Repair & Protection



**Sika® MonoTop®**  
**SikaTop®, SikaRepair®**  
**Sikagard®**

## Structural Strengthening



**Sikadur®, Sika® CarboDur®**  
**SikaWrap®**  
**Sika® CarboShear**

## Floor & Wall Systems



**Sikafloor®**  
**Sikagard®**  
**Sikagard® Duroplast**

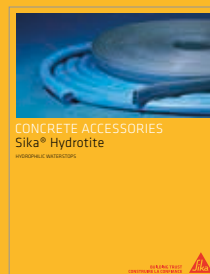
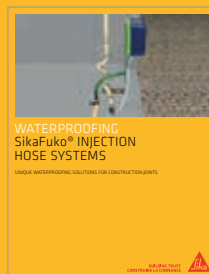
## Waterproofing Systems



**SikaProof®, SikaFuko®**  
**Sika® Greenstreak®**  
**SikaSwell®, SikaFix®**

Sika Canada Inc., a member of the Sika Group, is a leader in the field of speciality chemicals for construction and manufacturing industries. Our product lines feature high quality roofing systems, concrete admixtures, mortars and resins, sealants and adhesives, structural strengthening components, industrial and decorative flooring, as well as protective coatings and waterproofing systems. Our expertise is borne out of a global presence and served by strong, local support. Sika has earned the trust of our customers for over 100 years by delivering the highest standards of commitment and partnership.

*Also Available:*



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](http://www.sika.ca)

### SIKA CANADA INC.

**Head Office**  
601, avenue Delmar  
Pointe-Claire, Quebec  
H9R 4A9

### Other locations

Toronto  
Edmonton  
Vancouver

**1-800-933-SIKA**  
**[www.sika.ca](http://www.sika.ca)**

An ISO 9001 certified company  
Pointe-Claire: ISO 14001 certified EMS

**BUILDING TRUST**  
**CONSTRUIRE LA CONFIANCE**

