



APPLICATION MANUAL

SikaProof[®] A+

BUILDING TRUST



The information contained herein and any other advice are given in good faith – based on Sika Waterproofing current knowledge and experience of products when properly stored, handled and applied under normal conditions in accordance with Sika Waterproofing recommendations. The information given only apply to the applications and products expressly referred to herein. The information given is based on laboratory tests which do not replace practical tests. In case of changes in any parameter of the application, such as changes in substrates, or in case of a different application, consult Sika Waterproofing Technical Service prior to using Sika Waterproofing products. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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.

CONTENT

SikaProof® A+

General Information

- 5 What is SikaProof® A+
 - 6 The Products
 - 7 Application Tools
 - 8 Sealing and Bonding of Membrane Joints
 - 9 Substrate Preparation
 - 10 Inspection
-

Installation

- 12 Installation of Membrane Sheets
 - 13 SikaProof® Tape A+
 - 14 SikaProof® Tape A+
 - 15 SikaProof® Sandwich Tape
 - 16 SikaProof® Sandwich Tape
 - 17 Installation of Perimeter Edges and Base Slab
 - 18 Base Slab Application
-

Detailing

- 21 General Information
 - 22 Inside Corners
 - 27 Outside Corners
 - 31 Pipe Penetration
 - 33 Pile Head
-

Post Installation Work

- 36 General Information
 - 37 Formwork Tie-Bars
 - 38 Expansion and Construction Joints
 - 39 SikaProof® A+ System Components & Accessories
 - 40 Complementary Joint Sealing Products
-

Cleaning

- 41 General Information
-

Repair

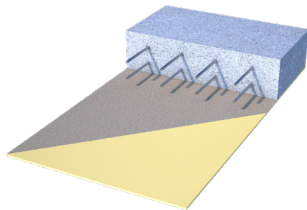
- 44 General Information
-

Protection

- 46 General Information
-

GENERAL INFORMATION

WHAT IS SikaProof® A+

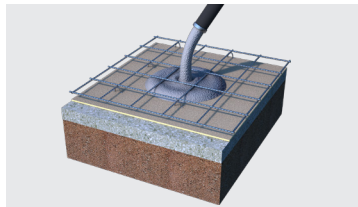


Highly flexible FPO membrane

- High crack-bridging capability
- 1.75 mm total thickness

Unique hybrid technology

- Polymer modified cementitious bonding layer



Pre-applied fully bonded waterproofing system

- No lateral water migration
- Mechanical bond to structure due to coarse structure
- Adhesive bond to structure due to cement content and special polymer



Sealing and bonding

- Single tapes solution
- Easy, fast and safe installation
- Simple application for detailing (pipe penetration, pile heads, etc.)

GENERAL INFORMATION

THE PRODUCTS

SAP No.	Product	Packaging	Size	Unit	Quantity/Unit	Packaging Units
---------	---------	-----------	------	------	---------------	-----------------

SYSTEM COMPONENTS

571641	SikaProof® A+ 12	roll	2.00 x 20 m	m ²	40 m ²	Single roll
571640	SikaProof® A+ 12	roll	1.00 x 20 m	m ²	20 m ²	Single roll
571628	SikaProof® Tape A+	roll	0.15 x 25 m	m	25 m	2 Rolls / box
577412	SikaProof® Sandwich Tape	roll	0.05 x 25 m	m	25 m	5 Rolls / box

ACCESSORIES

457589	SikaProof® Patch-200 B	roll	0.20 x 20 m	m	20 m	2 Rolls / box
424701	SikaProof® FixTape-50	roll	0.05 x 20 m	m	20 m	5 Rolls / box

GENERAL INFORMATION

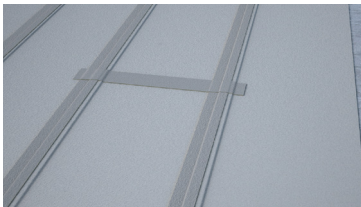
APPLICATION TOOLS



- Metal straight edge for cutting
- Clean, dry cloth
- Marking pen
- Tape measure
- Small pressure roller
- Membrane cutter
- Staple gun

GENERAL INFORMATION

SEALING AND BONDING OF MEMBRANE JOINTS



- All overlaps are sealed and bonded with either the SikaProof® Tape A+ or the SikaProof® Sandwich Tape
- The minimum overlap is 5 cm



The SikaProof® Tape A+ is used for:

- As inside tape for jointing of overlaps
- Detailing (e.g. pipe penetrations, pile heads, inside & outside corner)

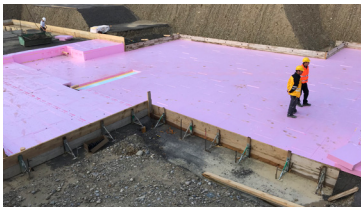


The SikaProof® Sandwich Tape is used for:

- Jointing of overlaps, especially for wall application with double-sided formwork

GENERAL INFORMATION

SUBSTRATE PREPARATION



Substrates for installation:

- Sufficient stability
- Avoid movement

Suitable substrates:

- Concrete blinding with a smooth surface finish (geotextile > 300 g/m²)
- Formwork
- Rigid thermal insulation
- Plywood
- Compacted soil



Surface:

- Smooth, uniform and clean
- Free from oil, grease, dust and any other loose particles
- Large gaps and voids must be filled before the installation
- Damp or slightly wet, but no ponding water
- Substrate temperature has to be min. +5°C / max. + 60°C



GENERAL INFORMATION INSPECTION

Before Installation

- Substrate quality
- Evenness of application area
- Protection layer

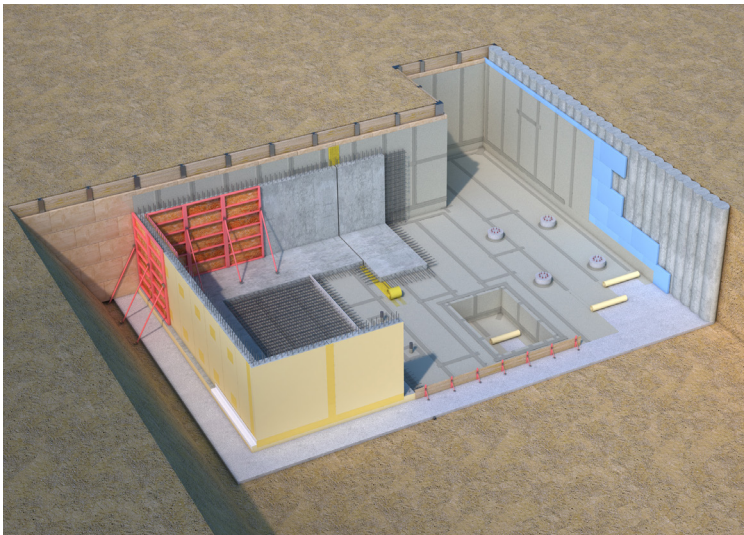
During Installation

- Execution of detailing
- Damage to the membrane
- Soiling on membrane

After Installation

- Damage to the membrane
- Soiling on membrane
- Excess material on membrane
(e.g. release liner, cut-offs, etc.)

INSTALLATION OF MEMBRANE SHEETS



- The installation of SikaProof® A+ has to be carefully performed
- The system can be applied with the SikaProof® Tape A+ for internal jointing and detailing
- It is mandatory to comply with the umbrella principle when working with double-sided formwork
- The umbrella principle means that the in wall applications the top membrane is always on the outside when jointing with the lower membrane
- Alternatively, SikaProof® Sandwich Tape is be used for internal jointing, especially for wall application, when working with double-sided formwork

1

SikaProof® Tape A+

1



2



3



4



5



1

1



2



3



4



5



1

SikaProof® Sandwich Tape

1



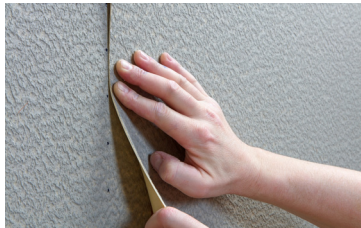
2



3



4



5



1

1



2



3

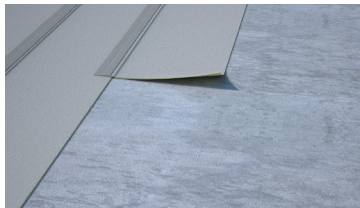


1

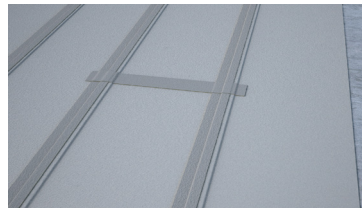
INSTALLATION OF PERIMETER EDGES AND BASE SLAB



- Use black dotted line as auxiliary line
- Alternatively, SikaProof® Sandwich Tape can be used for internal jointing in wall applications



- Smooth and clean substrate
- If necessary, use protection layer
- All overlaps have to be minimum 5.0 cm
- Use black dotted line as auxiliary line



- All T-joints must have an additional patch of tape
- All overlaps have to be minimum 5.0 cm
- Use black dotted line as auxiliary line

BASE SLAB APPLICATION

1



2



3



4



5



6



1

BASE SLAB APPLICATION

1



2



3



4



5



6



1

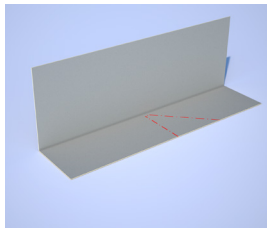
DETAILING GENERAL INFORMATION



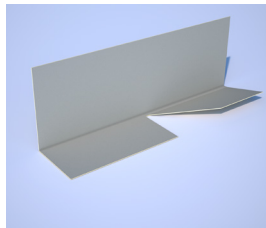
- In waterproofing membrane systems, the details are the most important part of the application
- Generally, it is differentiated between the inside corner, outside corner, pipe penetration and pile heads
- The proficient execution of the details is the key for a durable and reliable waterproofing system
- The SikaProof® A+ system offers a simple and safe solution for different types of details

DETAILING INSIDE CORNERS

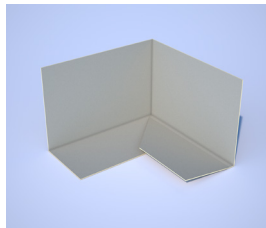
1



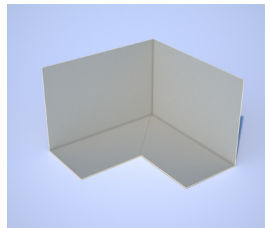
2



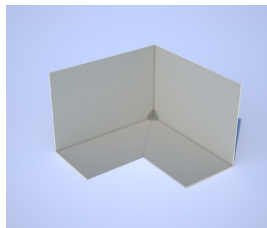
3



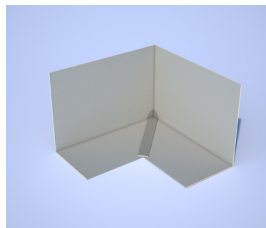
4



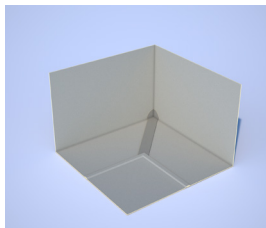
5



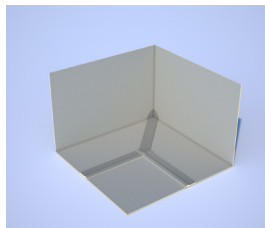
6



7



8



2

DETAILING INSIDE CORNERS

1



2



3



4



5



6



2

DETAILING INSIDE CORNERS

1



2



3



4



5



6



2

DETAILING INSIDE CORNERS

1



2



3



4



5



6



2

DETAILING INSIDE CORNERS

1



2



3



4



5



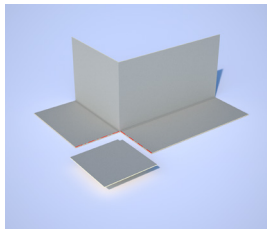
6



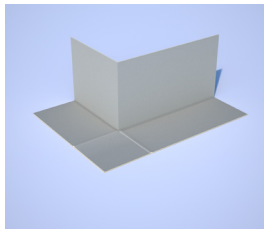
2

DETAILING OUTSIDE CORNERS

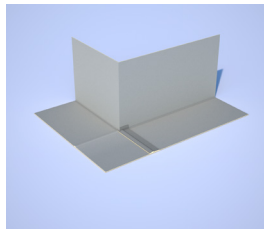
1



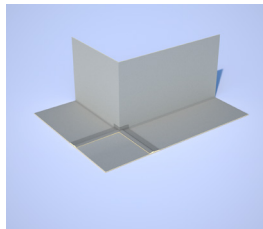
2



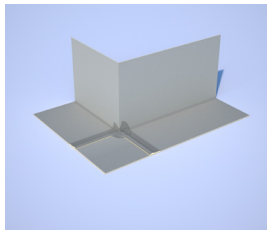
3



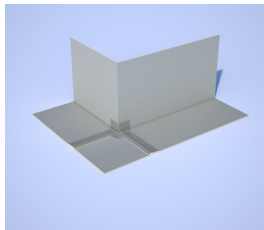
4



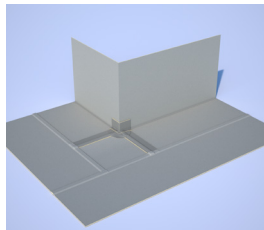
5



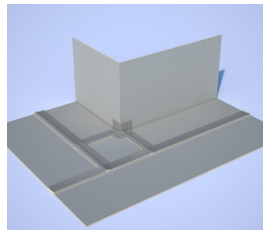
6



7



8



2

DETAILING OUTSIDE CORNERS

1



2



3



4



5



6



DETAILING OUTSIDE CORNERS

1



2



3



4



5



6



2

DETAILING OUTSIDE CORNERS

1



2



3



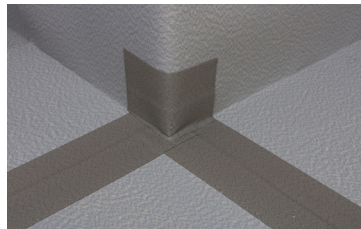
4



5



6



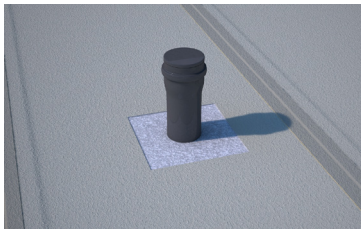
2

DETAILING PIPE PENETRATION

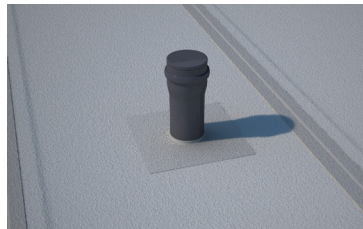
1



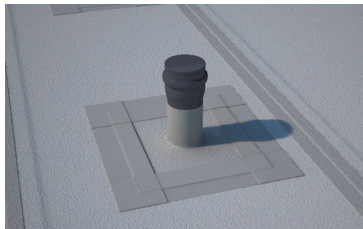
2



3



4



2

DETAILING PIPE PENETRATION

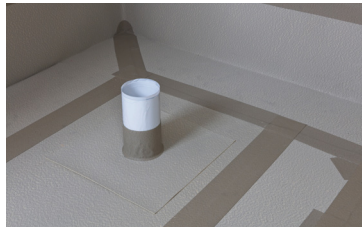
1



2



3



4



5



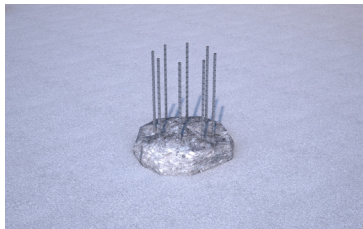
6



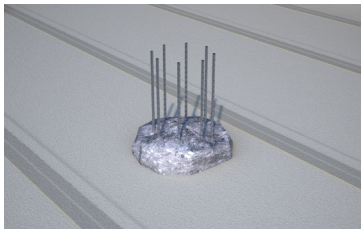
2

DETAILING PILE HEAD

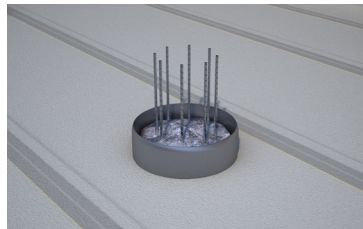
1



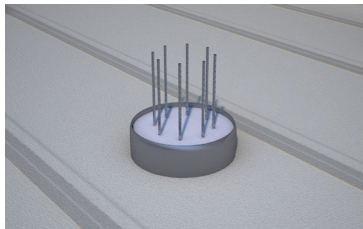
2



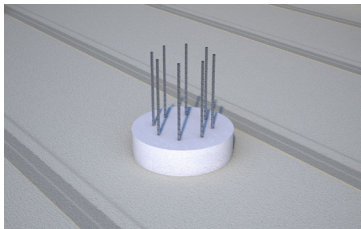
3



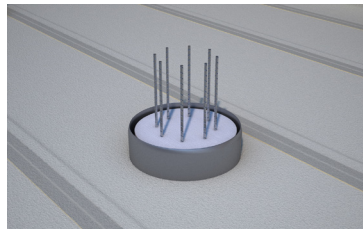
4



5



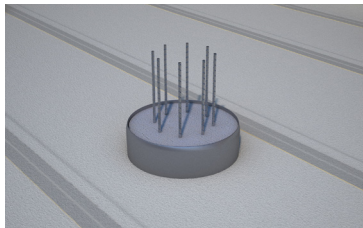
6



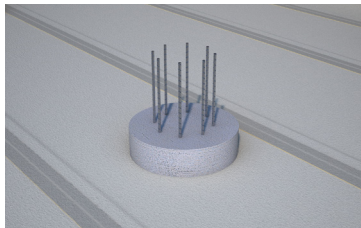
2

DETAILING PILE HEAD

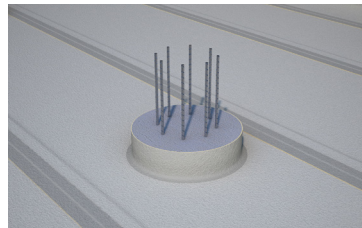
7



8

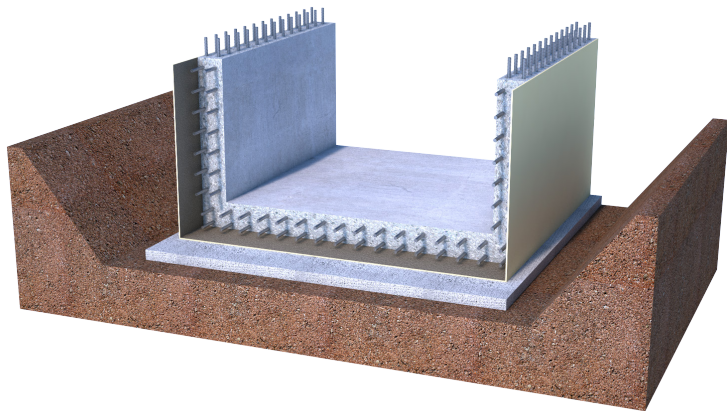


9



2

POST INSTALLATION WORK GENERAL INFORMATION

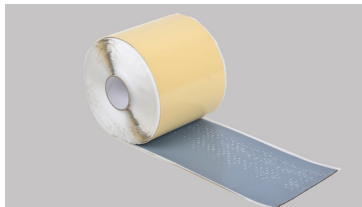


For projects with double-sided formwork, additional sealing work has to be conducted to ensure a complete waterproofing basement structure.

Following elements have to be sealed:

- Tie-bar holes
- Expansion and Construction Joints

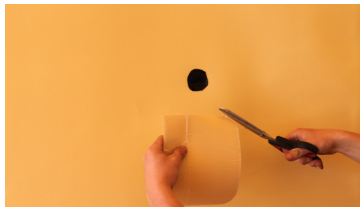
POST INSTALLATION WORK FORMWORK TIE-BARS



SikaProof® Patch-200 B



SikaProof® FixTape-50

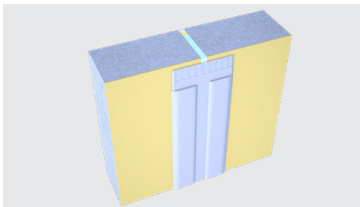


- Fill tie bar hole with Sika® X-Plug
- Round off the edges of the patch
- Apply the patch on to the tie-bar hole



- Press the entire patch with a roller

POST INSTALLATION WORK EXPANSION AND CONSTRUCTION JOINTS

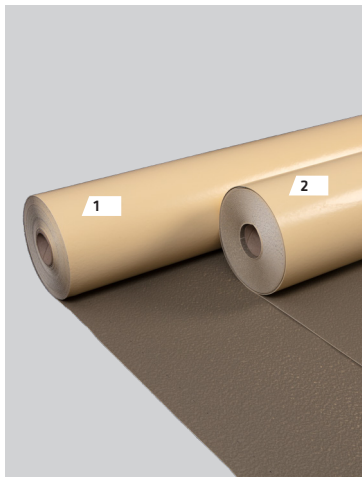


- For joints with anticipated movement, the use of Sikadur® Combiflex® SG joint sealing system is recommended
- Prior to using Sikadur® Combiflex® SG system, the application area on the SikaProof® A+ has to be flame-treated



- Pre-treat the concrete surface of the edge mechanically
- Clean the membrane surface
- Briefly pre-treat the membrane surface crosswise with an open torch
- Apply the Sikadur® Combiflex® SG system, according to the current Method Statement

SikaProof® A+ SYSTEM COMPONENTS & ACCESSORIES



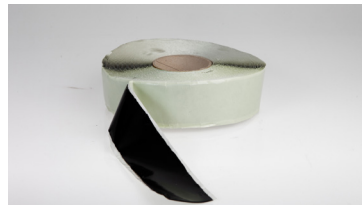
1. 571640 – SikaProof® A+ 12 (1 x 20 m)
2. 571641 – SikaProof® A+ 12 (2 x 20 m)



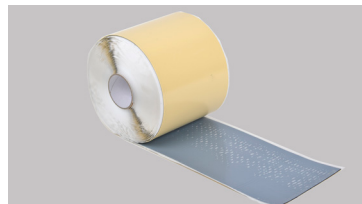
571628 – SikaProof® Tape A+



577412 – SikaProof® Sandwich Tape



424701 – SikaProof® FixTape-50



457589 – SikaProof® Patch-200 B

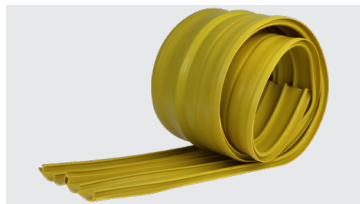
COMPLEMENTARY JOINT SEALING PRODUCTS



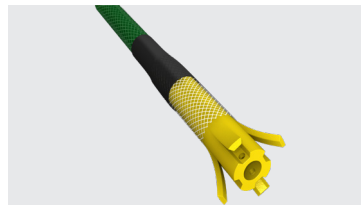
Sikadur® Combiflex® SG System



SikaSwell® or Sika® Hydrotite®



Sika® Greenstreak® Waterstop



SikaFuko®

CLEANING GENERAL INFORMATION

The SikaProof® A+ membrane has to be cleaned if it is soiled or contaminated with any other materials to ensure a full bond with fresh concrete on the entire area of the membrane.

Procedure

- Compressed air
- Controlled high-pressure water cleaner
 - Max. pressure ≤ 3000 psi
 - Flat nozzles - no spirals!
 - Min. distance between the membrane surface and the jet ≥ 300 mm (12 in)
 - Do not point the nozzle directly at overlap joints
 - Optimum angle for the jet $\leq 60^\circ$

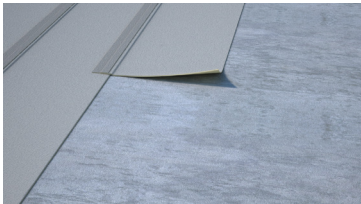
Remove all:

- Liners, membrane cut-offs and other waste materials
- Clean the excess cement laitance with water immediately after concreting, when it is still in its fresh state



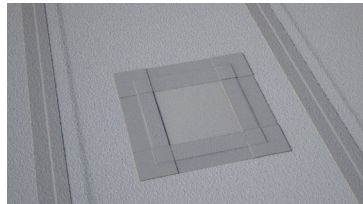
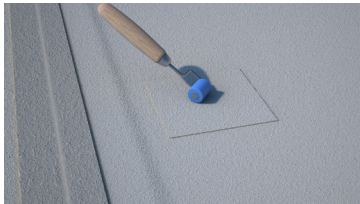
- Debris, dirt, dust, soil, sand, concrete/ cement residues
- Anything that could create a separation layer or cause delamination

REPAIR GENERAL INFORMATION



Any membrane damage ≤ 10 mm

- Seal & bond an additional SikaProof® Tape A+ on the damaged area



Any membrane damage ≥ 10 mm

- Cover damaged area with a membrane piece
- The membrane piece has to overlap 5 cm on all sides
- Seal & bond the membrane piece with SikaProof® Tape A+ on all sides

PROTECTION GENERAL INFORMATION

- Every membrane protection layer is temporary
- For concreting in stages a protection layer is required to prevent soiling on the membrane
- For duration of over 90 days between membrane installation and concreting, the SikaProof® A+ system has to be protected by UV-resistant layer

Options for protection layers:

- Plastic film/foil (UV resistant)
- Geotextile (UV resistant)
- Other equivalent measures



NOTES

NOTES

NOTES

USA
St. Louis, MO 63122

3400 Tree Court Industrial Blvd.

SIKA CORPORATION

Contact

Phone 800.325.9504

FAX 800.551.5145

usa.sika.com

BUILDING TRUST



The sale of all Sika products are subject to the following Limited Warranty:

LIMITED MATERIAL WARRANTY

Sika warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor.

NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

Our most current General Sales Conditions shall apply. Please consult the most current Product Data Sheet prior to any use.