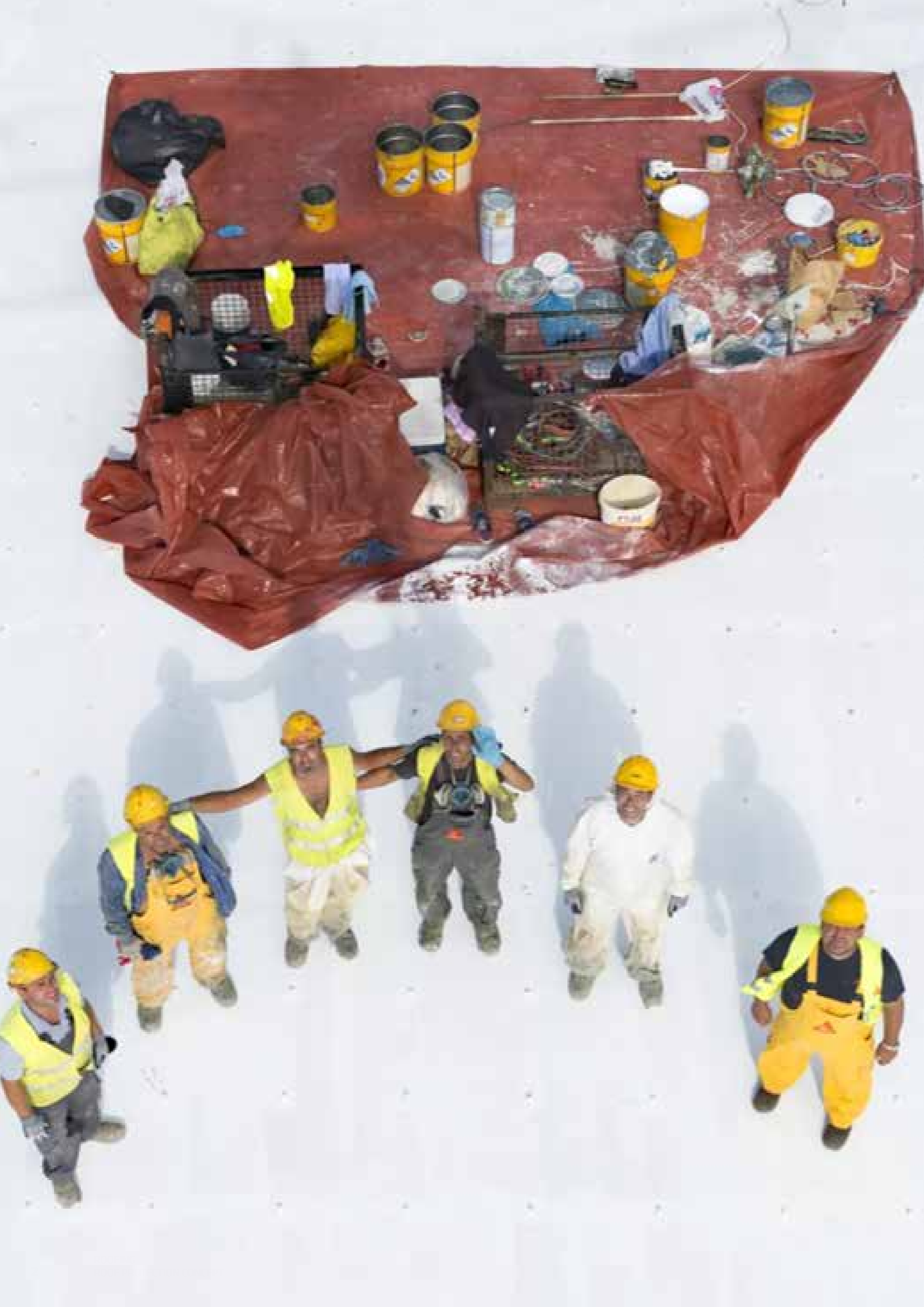




# ROOFING ROOF PROTECTION CONCEPT

HOW TO TAKE CARE AND WORK ON ROOFING SYSTEMS



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# INTRODUCTION TO ROOF PROTECTION

For everyone working on or near a Roofing System

**THE ROOFER FACES MULTIPLE PROBLEMS ON SITE TODAY** – 80% of failed roofs and leaks are caused by non-roofers, therefore protecting his craftsmanship from the traffic on the roof during the total building phase is a main priority.

Different workers from different professions will be active on site and might not care about the Sika membrane protecting the building from wind and weather. The job site has also become a multi-cultural environment with different levels of understanding or respect for each other's craftsmanship. This could have a negative impact on the final product since we see that mostly bad habits are sticking instead of good ones.

To support our customers who face this challenge, Sika now offers a Roof Protection Concept that will help to identify some risks and offer solutions to reduce the problems. The Roof Protection Concept will be regularly updated with new systems and best demonstrated practices from different countries and is a tool to unify the awareness of all involved parties on the roof.

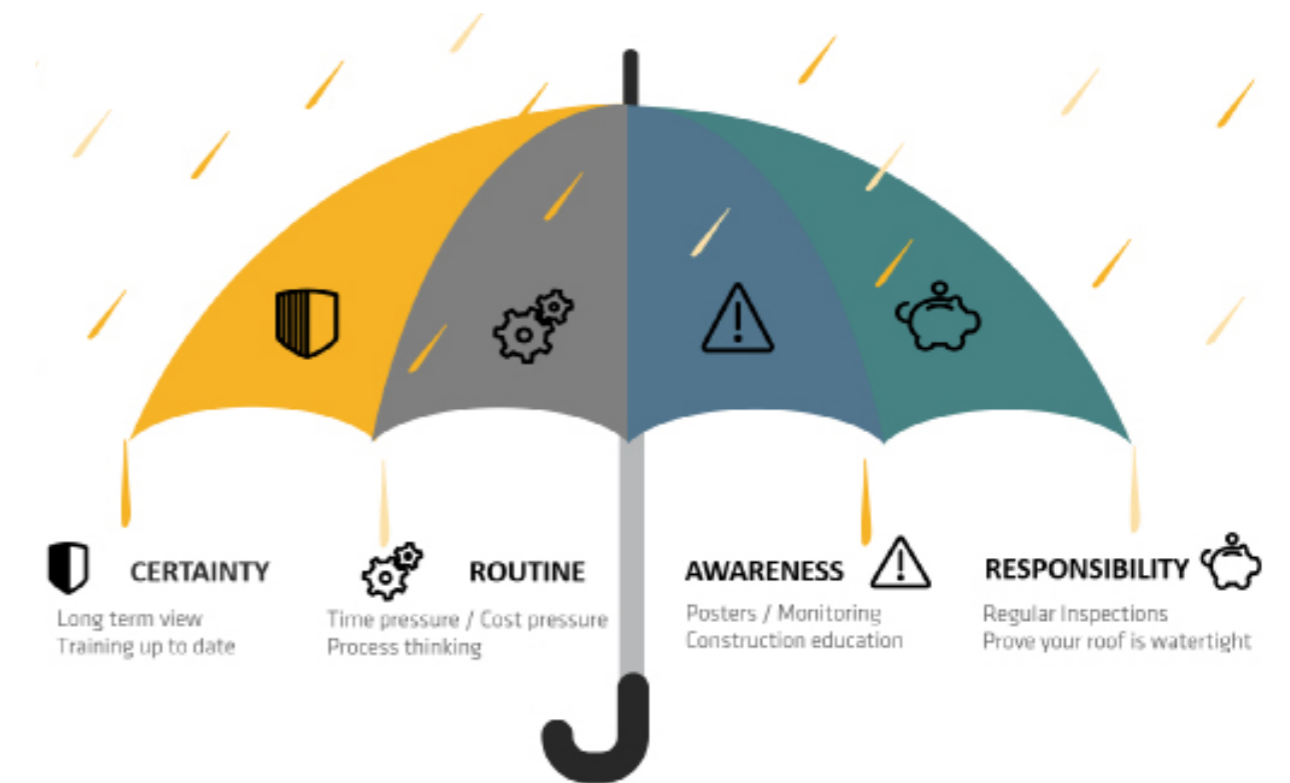
Many claims are related to this topic and claims during a project negatively impact the cost – causing time delays and making it necessary for extra work to be done.



# THE UMBRELLA MODEL

The Sika approach to identify the hurdles on a roof

KEEP ME SAFE AND I KEEP YOU DRY



The sole purpose of an umbrella is to keep what is underneath dry. It seems that everybody takes care of the umbrella's skin so that they do not get wet, but why are people not taking care of the roof skin?

In the last decade, a shift in construction has occurred. The job site is not a local place anymore but an international one. People from all over the world are working on job sites and all those people have a different understanding about how a roof should be done.

The Umbrella model helps to identify the hurdles on a roof. It is therefore divided into the four different dimensions which are currently having a negative impact on the roof. Over the next few pages, we will look at each of these dimensions in more detail.



# CERTAINTY

The importance to check the compatibility of products applied on the roof and the Roof Skin

**THE EASY WAY IS NOT ALWAYS THE BEST WAY.** The long-term view is missing and that has a direct negative effect on the roof's life cycle. Training is key for updating skills and learning new innovative techniques, and on a multi-cultural job site, trainings will ensure that everybody is aligned. Issues that cause leaks after a few months are hard to discover, but these leaks can be avoided in the planning stage of the project. The roofer should always be asked if the products that are applied on the roof are compatible to the Roof Skin.

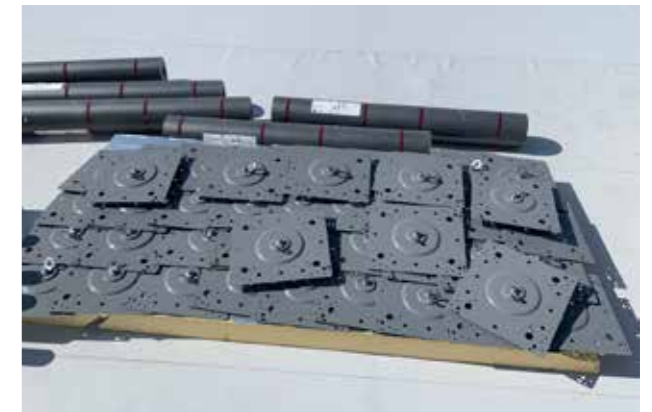


PROBLEM	SOLUTION
✗ Outlet sealed with a non-compatible adhesive. This will cause leaks in the long-term and is not aesthetically pleasing.	✓ Factory made, pre-formed part for watertight penetration of the roofing membrane. It provides a connection directly between substructure/roof deck below the roofing membrane and the installed item.
✗ Lightning conductor fixed with a non-compatible adhesive and not properly tightened to the membrane, which will cause leaks.	✓ Always make sure to investigate which products are compatible, before applying. Always check with the manufacturer
✗ Third party contractor made a puncture and did not repair it.	✓ Do not repair it by yourself, call the roofer so that they can repair it properly with the right tools.

# ROUTINE

From bad to good routines

**TIME IS MONEY AND THIS** has a negative impact on the quality of craftsmanship. People are being put under pressure to finish their job fast. The "SPEED" approach becomes routine, and mistakes are made. However, bad routines can be transformed into good ones.

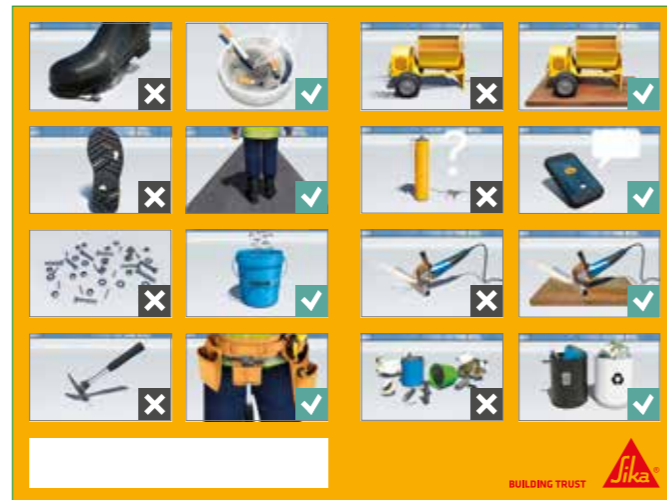


PROBLEM	SOLUTION
✗ Corner detail wrongly applied.	✓ Pre-fabricated parts will improve the life expectancy of the details and they will increase productivity without compromising quality.
✗ Lack of training on the job site.	✓ Training, video, or application handbook offered by the suppliers to inform about the right method.
✗ Ensure no cigarettes are thrown anywhere on the roofing skin.	✓ Make a designated smoking area on the roof and make sure several ash trays are available.
✗ Loose screws and other sharp objects lying on the roof can cause a puncture in the roofing skin.	✓ By putting all the screws and sharp objects in a bucket, people will not be able to walk on them.
✗ Loose trash on the roof lying in direct contact with the membrane can cause punctures and leaks.	✓ By putting standard Big Bags on the roof, you indicate to everyone that that is where the trash goes.
✗ Dirt and trash pick up on the sole of shoes can and will most definitely damage the roof.	✓ Install walkways on the most used parts of the roof so that the membrane is protected where most of the foot traffic falls.

# AWARENESS

The key to change bad habits

**DIFFERENT PROFESSIONS ON SITE** is one of the biggest hurdles on a roof due to lack of knowledge and awareness. Every day a new leak is caused by someone who has no idea that they did something wrong. Awareness is therefore key to changing this routine - people need to understand what they have been doing wrong. Posters that can be fixed on the roof or the stairs to point out the “dos and don’ts” on a roof can be helpful. The poster template is easy to edit so that everyone can adjust to fit their needs. There is also a possibility to upload a business logo to personalize the poster.



PROBLEM	SOLUTION
<p>✗ No one really knows what can damage a flat roof, except the roofer.</p>	<p>✓ Hang posters with ‘do’s and don’ts’ on a roof to raise awareness. During the morning briefing go through the poster and explain it.</p>
<p>✗ Roof used as a storage place. Sharp materials in direct contact with the thin membrane.</p>	<p>✓ Put a palette, insulation board or a wood panel underneath the material you would store on the roof. This prevents the membrane getting punctured by sharp objects. Always check with the roofer if storing materials is OK.</p>
<p>✗ Puncture created by a machine in direct contact with the roof.</p>	<p>✓ Always put a palette, insulation board or wood panel underneath the machine so that the membrane cannot be damaged. Also use an absorptive mattress for potential leaks.</p>
<p>✗ Dropping a sharp tool is one of the most common causes of leaks on the roof. If you drop a tool always check for a puncture and call the roofer.</p>	<p>✓ Use a tool belt so that all of your tools are properly fixed and do not risk being dropped on the roof.</p>

# RESPONSIBILITIES

Being accountable for your own actions

**IT IS WITHIN THE ROOFER’S RESPONSIBILITY** to make a watertight roof. However, they are challenged to prove that the roof is watertight once it is completed, and that the leaks on the roof are caused by workers from a different profession.



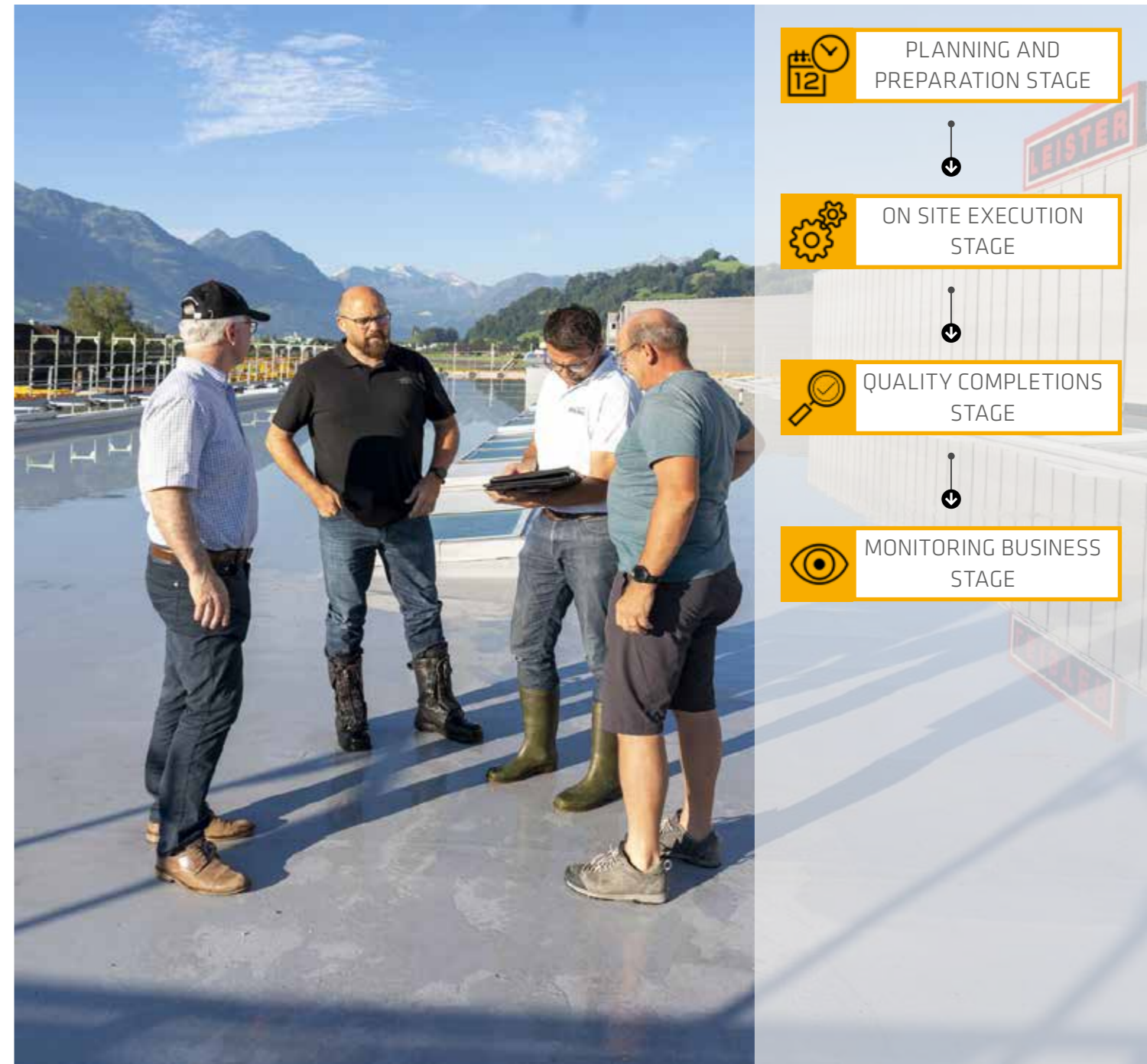
PROBLEM	SOLUTION
<p>✗ If there is a decrease of current and the roofer was welding, it can be that the seam was not properly welded.</p>	<p>✓ “My Leister app” turns your Leister device into an intelligent tool and offers you continuous data on the welded areas.</p>
<p>✗ Due to bad routines, mistakes are made and quality management is missing.</p>	<p>✓ The inspection tool help to support the roofer to file and report mistakes. It is also a quality management tool for the owner.</p>





# APPLYING THE UMBRELLA MODEL ALONG ALL THE STAGES OF THE ROOF INSTALLATION

**WHETHER WORKING ON** a small or large project, an understanding of the project stages is essential. Be aware of the four stages of the project to keep your job site organized and on track, from planning to monitoring. There are more than four stages but for this Concept, we have chosen the four main ones.





# PLANNING AND PREPARATION STAGE

Select the right system for your project

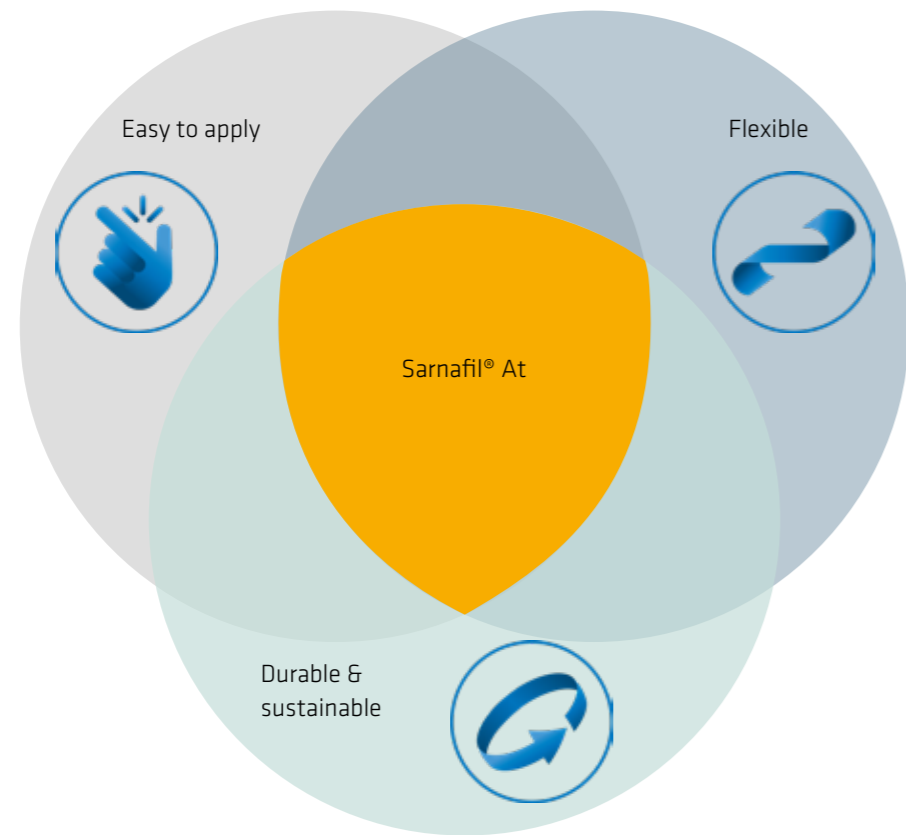
**THE PLANNING AND PREPARATION STAGE** is focused on the architects and the planners. At this stage of the project, special systems can be offered and requested by the roofer or the main contractor.

## PROPOSAL OF A HIGH PUNCTURE RESISTANT MEMBRANE:

The Sarnafil® AT brand represents long term performance and is internationally recognized as the prime brand in the roofing industry. A new revolutionary technology enables Sika to fill the gap on top of the pyramid, underlining market and technology leadership - Sarnafil® AT - Advanced Technology.

### ADVANTAGES

- Versatile
- Easy to apply
- Flexible
- Durable
- Sustainable



### ADVANTAGES:

- **Easy to apply** thanks to its wide application temperature range and welding speed
- **High flexibility** for easy, fast and safe application even at low temperatures
- **Fully compatible** with our existing Sarnafil® AT range - no need for additional accessories on stock
- **High resistance** to impact to avoid puncturing during installation and service
- **Sustainable** - First and only thermoplastic roofing product in the market to be Cradle to Cradle Certified™

# ON SITE EXECUTION STAGE

Being accountable for your own actions

**THE ON SITE EXECUTION STAGE** is when the project is starting. This is a critical period to brief everyone and make sure everyone is trained and aware of the "Umbrella Model".

















### PLANT NAPPY:


Is a lightweight method of puncture containment. Designed to withstand all weather conditions, it is rugged enough to place equipment on all year round. Its unmatched patented technology offers a user-friendly solution for dropping tools and other items on a thin membrane.



### POSTERS TO RAISE AWARENESS:

Regardless of the type, the overall purpose of your protection poster will be to build awareness for the workforce and strengthen their protection knowledge. The poster can be used during briefings and be fixed around the job site such as on the roof.

 ❌	 ✅	 ❌	 ✅
 ❌	 ✅	 ❌	 ✅
 ❌	 ✅	 ❌	 ✅
 ❌	 ✅	 ❌	 ✅



BUILDING TRUST



# QUALITY COMPLETIONS STAGE

Being accountable for your own actions

**THE QUALITY COMPLETIONS STAGE** is an executing process and it is primarily concerned with overall process improvements to ensure that each time a deliverable is produced, it is error free. If the quality of the processes and activities is improved, then the quality of the product should also improve along with an overall reduction of cost. Quality completions begins very early and continues throughout the life cycle of the project.



Non Active Leak detection system is a power based measurement method of leak detection. Our approach is simple yet innovative and requires only a thin film of water on the tested surface to be totally effective. An intermittent low voltage current is applied to the roof surface which, in general principle, will flow towards a defect in an effort to find a grounded earth. This information enables our experienced technicians to pinpoint the precise location of the defects, regardless of their size.

# MONITORING BUSINESS STAGE

Being accountable for your own actions

**THE MONITORING BUSINESS STAGE** is linked to the “Quality Completion Stage”. When the roof is completed, this is when the final stage begins.



## SikaRoof® CONTROL SYSTEMS

Aspects such as sustainability and energy efficiency are becoming increasingly important in today’s world. This development is based on a holistic view of a building in its entire life cycle. SikaRoof® Control Monitoring Systems enables to inspect water ingress and detect / locate the defective area

and helps to secure material assets and prevents consequential damages. The continuous monitoring of the building condition allows for a targeted and cost-effective maintenance. The SikaRoof® Control – Monitoring is designed as a modular system.

	Control Pipe manual visual inspection possibility	Control Pipe with integrated 24/7 monitoring	Compartments / Waterstop System	SikaRoof® Control (precise leak detection)
Detection of water on vapour control layer	● (visual check / passive)	● (monitoring / active)	○	○
Limiting the area of water spread inside the roof build-up	○	○	● (100 - 600 m² compartment size)	○
Precise leak detection possibility	○	○	○	● (high / low voltage test)

● Suitable      ○ Not suitable

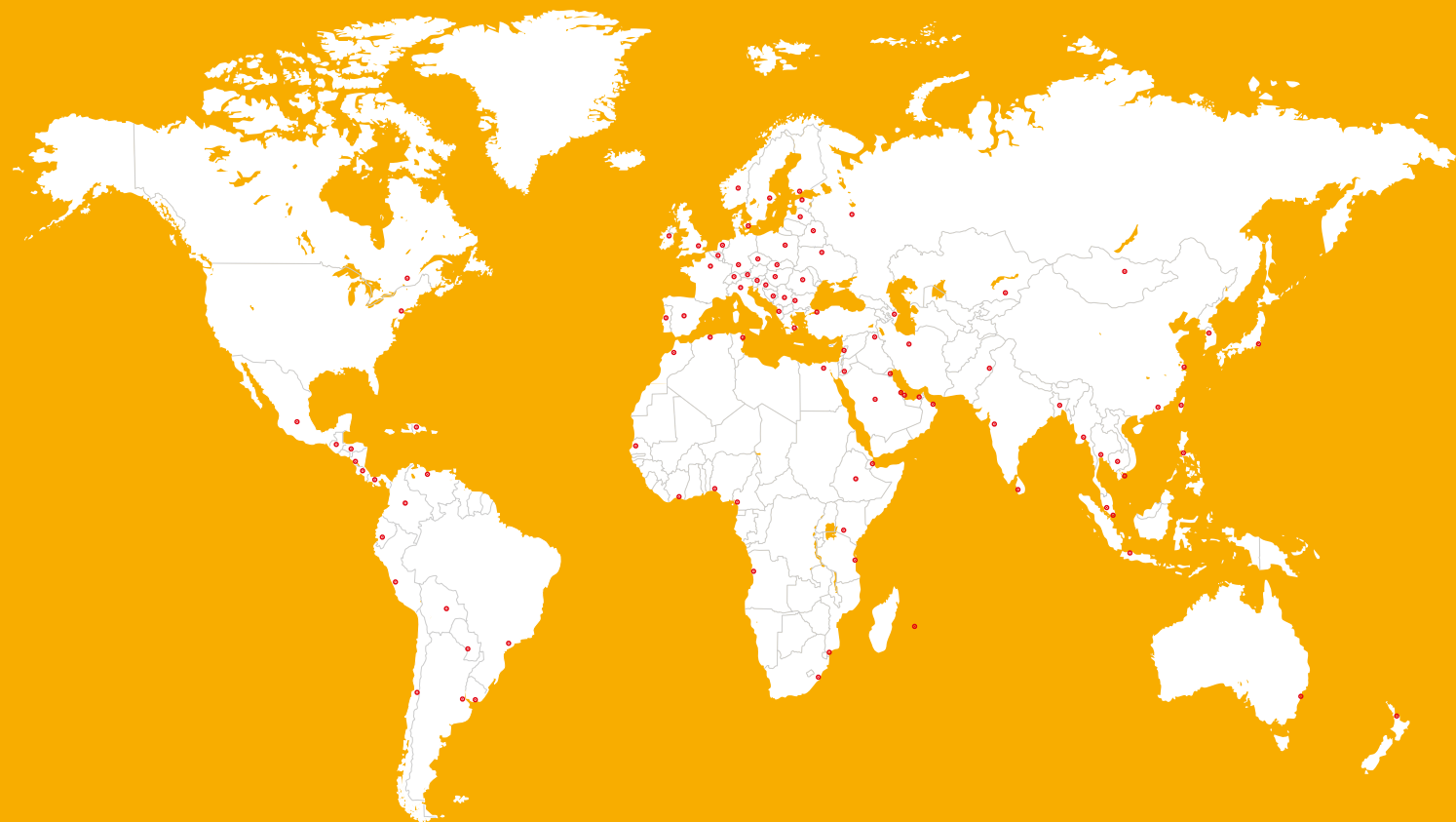
## MAINTENANCE

Every roof needs maintenance to extend its life cycle. This is a big topic for the owner but not many options are available yet. Therefore this stage will be updated soon.

- Repairing kit compatible with our membrane (near future)
- Extended guarantee scheme (near future)
- Sika cleaning set



# GLOBAL BUT LOCAL PARTNERSHIP



## WE ARE SIKA

Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector and the motor vehicle industry. Sika's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

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



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