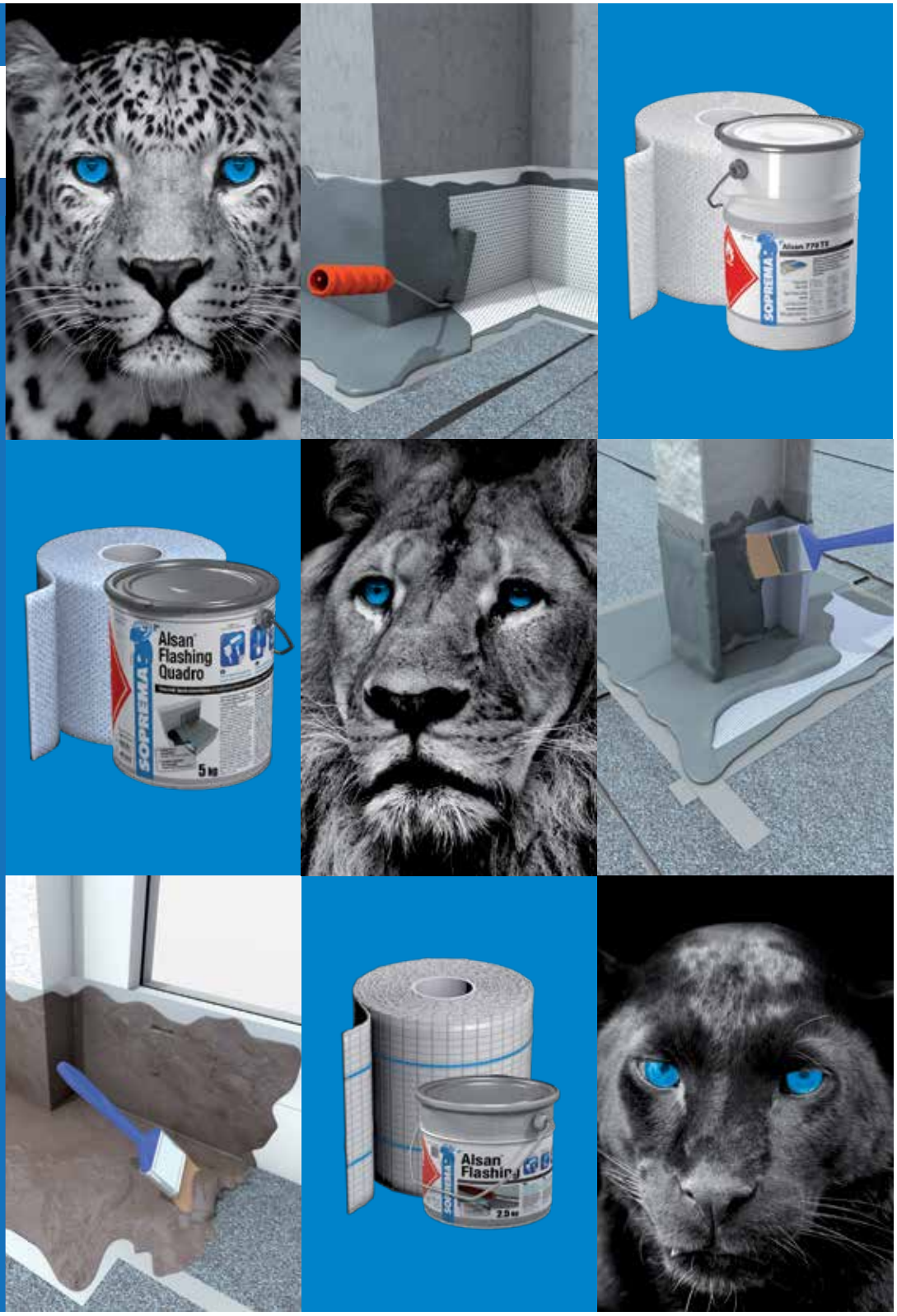
alsan by SOPREMA

Liquid resins



JUNCTIONS,
UPSTANDS,
BORDERS
AND DETAILS

ALSAN
INSTALLATION INSTRUCTIONS

SOPREMA GROUP

The introduction of liquid resins for roofing and structural waterproofing systems has helped enormously to make working on junctions, upstands and borders as well as penetrations and details easier.

Professional application, taking site conditions into account, will create durable, low-maintenance and attractive coatings moulded to the building. To achieve this, we offer you, as specialist applicator, an extensive range of products. You can then choose the material that is best suited to specific requirements.

However, given the vast array of application instructions, necessary substrate pretreatment and material properties, it is not always easy to work out the right product in terms of building standards and technology as well as ease of application.

These installation instructions are designed to help you decide which ALSAN product is the right waterproofing resin for your requirements, with reference to current codes of practice. This document also provides information about the essential and correct operations and techniques.

If you have any queries, please do not hesitate to contact SOPREMA's Application Technology department.

LIQUID RESINS
FOR JUNCTIONS, UPSTANDS AND BORDERS

CONTENTS

ALSAN THE RESINS

In the past 40 years, liquid resins have established themselves in the market as durable materials that are eminently suitable for waterproofing and surfacing applications. They are becoming increasingly important and are now the obvious choice for many waterproofing projects, not only for larger areas, but also for junctions and borders, where they offer lasting solutions.

ALSAN 770 TX

Since PMMA (polymethyl methacrylate) was developed in 1928, it has established itself in many everyday applications. In the areas of waterproofing and surfacing, **ALSAN PMMA** is the perfect choice on account of its special formulation to suit every requirement, offering controllable cure times and optimal end properties on site.

Tested and approved for the highest performance categories, with endless possibilities in terms of application, creativity and flexibility, ALSAN PMMA systems offer certified quality at the highest level. Among the PMMA range, **ALSAN 770 TX** is the highly flexible, fast-curing waterproofing resin specifically designed for details and upstands.

ALSAN Flashing quadro

PU-based liquid resins have been state-of-the-art products for several decades and are used in a wide range of applications. **ALSAN Flashing quadro** is a polyurethane-based 1C product offered by SOPREMA.

Seamless application, high elasticity, weather-resistance, all combined with direct application to concrete and system-specific bitumen sheets around junctions, make this product a versatile solution.

ALSAN Flashing & ALSAN Flashing Jardin

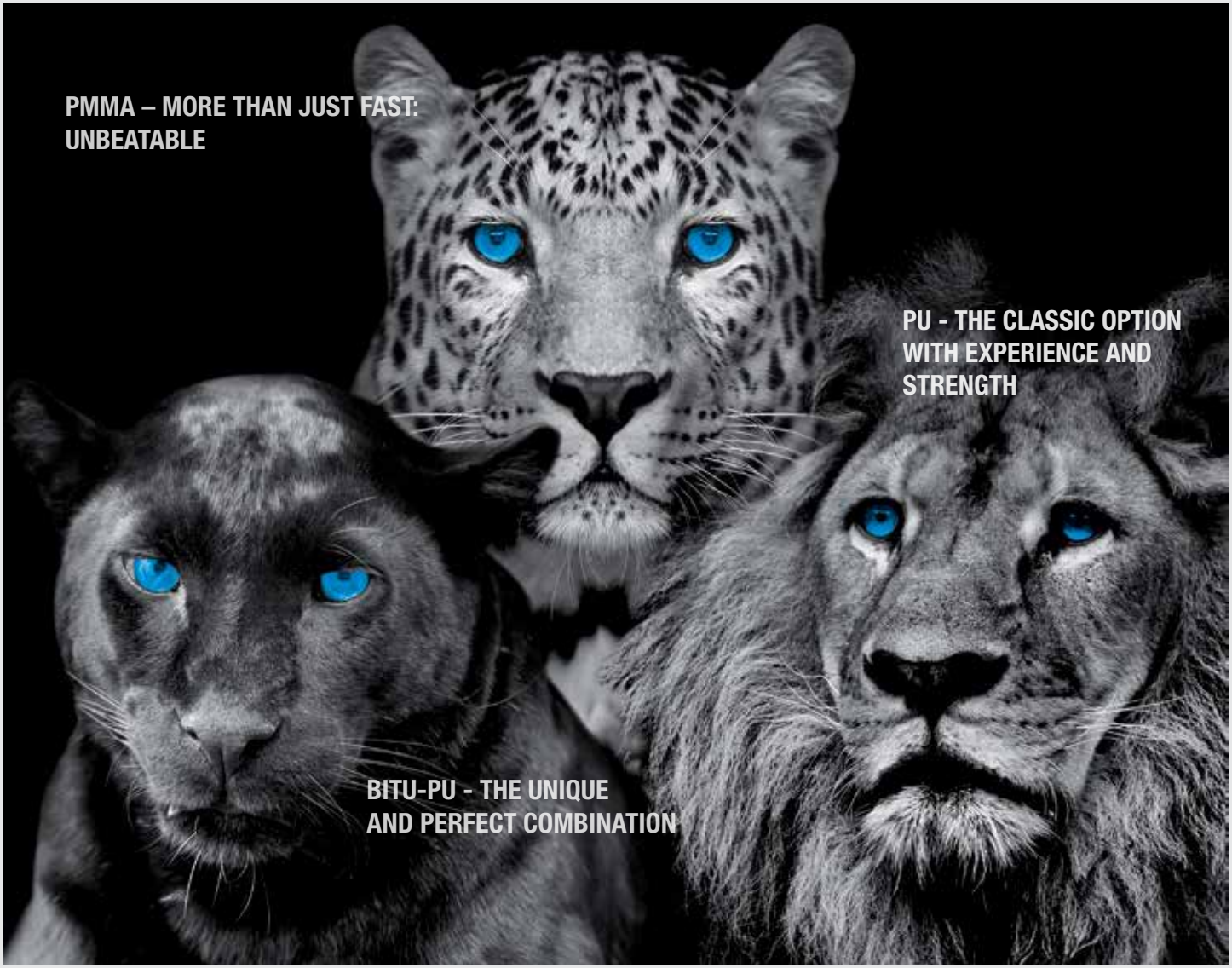
Bitumen is matched up with polyurethane and therefore combines the special properties of one of the oldest and most proven waterproofing materials – bitumen – with SOPREMA's high-performance polyurethane. Together, their complementary characteristics have produced a unique product.

Absolutely watertight, resistant to subsurface migration, UV light, alkalis and weathering, **ALSAN Flashing** delivers permanent elasticity and ageing resistance as well as ease of application, making it the ideal product for junctions, e.g. with system-specific bitumen sheets. If root resistance is required, the FLL (2008) approved, root- and rhizome-resistant variant, **ALSAN Flashing Jardin**, is the product of choice. Substrate preparation, application, waterproofing – available since 1997.

YOUR DECISION

Different requirements demand different solutions.
The following overview is designed to help you make the right decision.

	ALSAN 770 TX	ALSAN Flashing quadro	ALSAN Flashing	ALSAN Flashing Jardin
ETAG 005 approval	●	●		
CE marking according to EAD (European Assessment Document)			●	●
Hard roofing	●	●	●	●
PG-FLK approval (structural waterproofing)	●	●	●	●
PG-ÜBB-approval (junction with water-impermeable concrete)	●	●		
Asphalt resistance	●		●	●
Choice of colours	Graphite black Basalt grey Light grey Pebble grey	Light grey Dark grey	Dark brown	Black



ALSAN THE SUBSTRATES

ASSESSMENT AND PREPARATION

In principle the bond between the substrate and the layers of liquid resin is largely dependent on the quality of the surface. It is therefore vital that the existing surface is assessed when planning and installing surfacing and water-proofing systems.

Separating materials, such as cement slurry, surface moisture, oils and loose existing coatings, have a negative effect on adhesion and, in the worst case, will result in the failure of the entire build-up.

A correctly and carefully prepared substrate determines the success of installing liquid resins as waterproofing and surfacing systems.

SUBSTRATE ASSESSMENT

Substrate requirements – fundamental principles of substrate testing

Key aspects to consider:

- Bond strength
- Compressive strength must be ensured
- Substrate must be free from dust, adhesion-reducing substances and dry
- No excessive roughness height

For further information please refer to information sheet 100 – Testing and assessing substrates.

1. Essentially the areas to be coated should be visually inspected and various additional tests carried out:
The area is **tapped with a suitable hammer** to identify cavities or loose existing coatings. Problem areas are marked and specially treated if required.

2. At the time of application, substrate moisture **must not exceed 5 % by mass or 16 % by volume.** Electronic measuring methods using a high-quality device can determine this with sufficient accuracy and in a non-destructive way up to a certain depth. A more precise method, and one that is independent of the layer thickness, is the “CM method”.

3. To ensure a durable bond between the surfacing material and the substrate, it is vital that sufficient adhesive strength is achieved. For cementitious substrates the **strength required is >1.5 N/mm²** and for **asphalt substrates it is >0.8 N/mm².**

4. If the actual layers making up the substrate are not known or if cavities and moisture, for instance, are likely to be found at a greater depth within the substrate, **coring will be required at specific points** and the specimens analysed. The reinforcement layer must be checked by a structural engineer before the product is installed.

SUBSTRATE PREPARATION

Preparatory measures

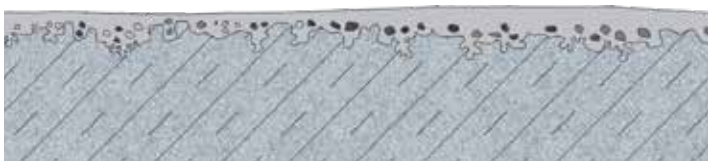
Once the nature of the substrate has been determined and its condition as well as general quality assessed, this information can be used to determine the preparation that will be required.

In many cases the substrate will consist of a cement-bound building material, such as concrete, screed or mortar. If so, it is worth noting that these materials might contain various additives that could influence adhesion. There are three basic methods for preparing these substrates and they can be applied to suit the required finish:

- **Grinding**
  - **PCD / diamond grinding for mineral substrates (e.g. concrete)**
  - **Cleaning and abrading for smooth substrates (e.g. metal, plastics sheets)**
- **Shot blasting**
- **Sand blasting**

PCD / diamond grinding

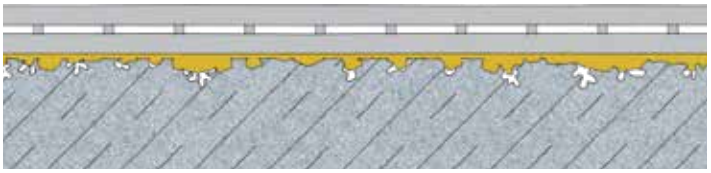
Grinding is the simplest method for the treatment of vertical and horizontal surfaces. The rotation of the cup wheel lightly erodes the surface layer and the essential direct vacuuming process also removes dust particles from minor indentations. However, unsound patches are only removed to a limited extent and it may not be possible to vacuum off some of the inclusions at a deeper level.



Cement slurries and accumulated dirt form a continuous film that reduces or prevents adhesion. It is vital that these are removed before the liquid resins are applied.

A cup wheel for grinding, combined with a suitable vacuum, removes the thin film from the surface. The vacuum largely removes the dirt found in the pores.

The resin is then in contact with the surface and can penetrate this to some extent.



The waterproofing resin can then be applied.

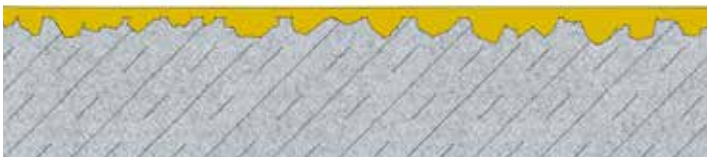
For further information please refer to information sheet 101 – Substrate preparation.

Shot blasting

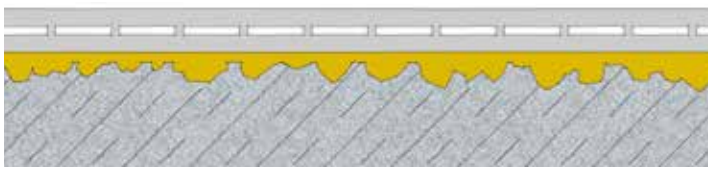
An integrated vacuum also makes the shot-blasting method a very low-dust option. The surface to be treated is impacted with small steel shots, which shatter, detach and remove small material structures. Contamination and dirt is also expelled from lower-lying sections. This method will also remove rubber deposits and old markings from roads, multi-storey car parks and industrial flooring without any problem. Due to the relatively large size of shot-blasting equipment, corners and edges may need to be treated by grinding as well.

Whenever large areas have to be prepared for subsequent coating, shot blasting is the number one choice. This method initially removes the top layer, which is usually of inferior quality. Loose particles are removed.

The treatment method creates a key, i.e. a roughened surface with a relatively uniform surface texture, which certainly helps to ensure good bonding strength. Shot blasting also opens pores that only have a very thin covering layer.



The roughness generated in this way, together with the deep action of the blast media, creates the ideal texture. The primer resin can penetrate the surface and hardens to form a flush layer over the entire substrate.



The waterproofing resin can then be applied.

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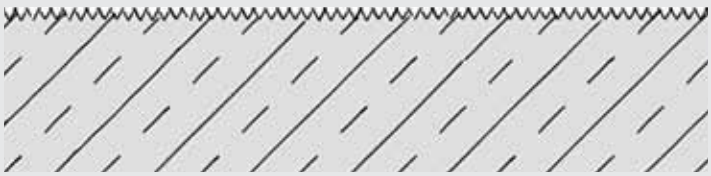
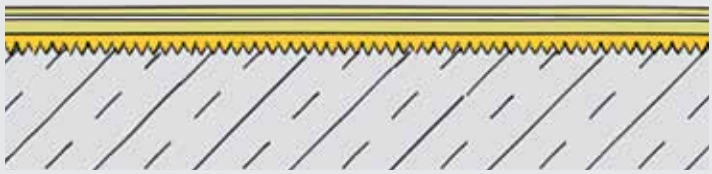
Sand blasting

Sand blasting allows many different substrate types to be treated in a way that suits the individual surfaces. Cement-bound surfaces can be roughened and cleaned. This method can also be used to prepare corroded reinforcement steel. It is a very gentle treatment and confined exclusively to the surface structure, without attacking the layers below. Sand blasting is particularly suitable for vertical elements, although the associated protection and installation measures are very time-consuming.

If it is merely a question of removing layers of light dirt or coatings from the substrate, then sand blasting is a suitable method.



The mineral surface is evenly roughened and any contamination and dirt is removed. The generated dirt and blast media then have to be collected separately and disposed of.



Especially on vertical surfaces, sand blasting will create a very good finish without causing deeper damage to the structural element.

Substrate / method	Grinding		Shot blasting	Sand blasting
	PCD / diamond grinding	Cleaning and abrading		
Concrete / screed	•		•	•
Rolled / mastic asphalt	PCD grinding only		•	•
Bitumen sheets	Note: Remove loose particles from the surfaces			
Wood		Abrading only		•
Ceramics / tiles	•			•
Plastics waterproofing sheets		•		
Metal		•		•

Cleaning and abrading

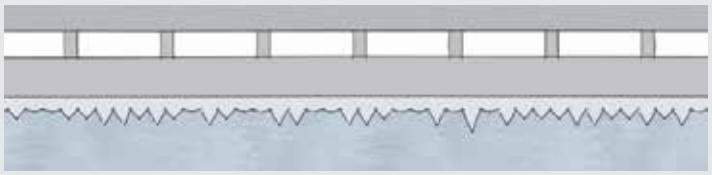
For a large number of typical substrates, e.g. metal, FPO/PVC sheets, PVC window profiles, synthetic resins etc., the application of a system-specific cleaning agent, followed by abrading the substrates, delivers the best results in terms of substrate preparation.

To ensure the best possible bond between the resin and the substrate, we recommend cleaning the surface thoroughly with a system-specific cleaning agent. This guarantees that adhesion-reducing media, e.g. dust, grease, moss and other typical substances that are not firmly bonded to the substrate, are removed.

Once the surface has been cleaned thoroughly, the cleaning agent used must be allowed to flash off.

After this the surface is roughened all over. Even, rather than deep, abrasion will create a good key and help the resin adhere to the substrate.

It is important that these steps are carried out in the correct order. If the substrate were roughened first, the grinding process would force these substances under the surface. The later application of a cleaning agent would then burn these substances into the surface.



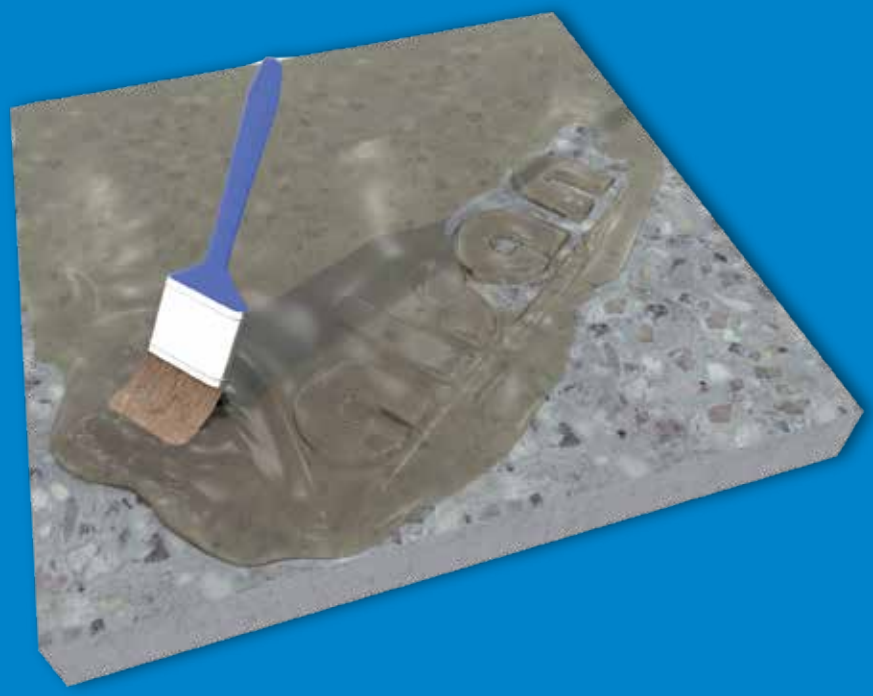
Once the surface has been roughened, the primer or waterproofing resin can be applied.

ALSAN THE SUBSTRATES

PRETREATMENT AND PRIMING

Once the substrate has been assessed and prepared, the correct pretreatment needs to be defined.

The following table provides information about the most important substrates.



THE SUBSTRATES

Subsequent pretreatment of substrates

SUBSTRATES	PRETREATMENT	SUBSEQUENT LAYERS		NOTES
		PMMA	1-C PU/BITU-PU	
		ALSAN 770 TX / 775 TX	ALSAN Flashing quadro / ALSAN Flashing / ALSAN Flashing Jardin	
		For junctions, upstands and borders	For junctions, upstands and borders	
MINERAL SUBSTRATES				
Cement-bound screeds	Grind using PCD method.	ALSAN 170 / ALSAN 171	No primer required required.	The cement skin must be removed. Adhesive pull strength 1.5 N/mm².
Epoxy-cementitious screeds (ECC)	Grind using PCD method.	ALSAN 172	No primer required required.	The cement skin must be removed. Adhesive pull strength 1.5 N/mm².
Calcium-sulphate-bound screeds (e.g. anhydrite)		No application recommended.	No application recommended.	
Magnesite-bound screeds (e.g. wood cement)		No application recommended.	No application recommended.	
EP-resin-bound screeds	Grind using PCD method.	ALSAN 170 / ALSAN 171	See notes.	Recommendation: Sanded EP layer required.
PU-resin-bound screeds	Grind using PCD method.	ALSAN 172	No primer required required.	
PMMA-resin-bound screeds	Grind using PCD method.	No primer required required.	See notes.	Recommendation: Sanded PMMA layer required.
Bitumen-bound screeds (e.g. mastic, rolled asphalt)	Grind using PCD method.	ALSAN 171 / ALSAN 172	No primer required required.	For new mastic asphalt we recommend waiting for least one month before applying the coating.
Concrete	Grind using PCD method.	ALSAN 170 / ALSAN 171	No primer required required.	The cement skin must be removed. Adhesive pull strength 1.5 N/mm².
High-compacted concrete (High-strength or vacuum)	Grind using PCD method.	ALSAN 170 / ALSAN 171	No primer required required.	The cement skin must be removed. Adhesive pull strength 1.5 N/mm².
Light concrete (e.g. Liapor, Lecca)	Grind lightly using PCD method.	ALSAN 170 / ALSAN 171	No primer required required.	Primer must be applied to form a continuous film.
Treated concrete (e.g. by curing, formwork oil)	Clean. Grind with PCD method.	ALSAN 170 / ALSAN 171	No primer required required.	
Synthetic-resin modified mortars	Grind using PCD method.	ALSAN 170 / ALSAN 171	No primer required required.	The cement skin must be removed. Adhesive pull strength 1.5 N/mm².
Cement mortar	Grind using PCD method.	ALSAN 170 / ALSAN 171	No primer required required.	The cement skin must be removed. Adhesive pull strength 1.5 N/mm².
Untreated brick and sand-lime block masonry	Clean off any dust.	ALSAN 170 / ALSAN 171	No primer required required.	Use ALSAN 074 to fill joints if required.
Stoneware slabs		No application recommended.	No application recommended.	

SUBSTRATES	PRETREATMENT	SUBSEQUENT LAYERS		NOTES
		PMMA	1-C PU/BITU-PU	
		ALSAN 770 TX / 775 TX	ALSAN Flashing quadro / ALSAN Flashing / ALSAN Flashing Jardin	
		For junctions, upstands and borders	For junctions, upstands and borders	
METALS				
Untreated copper	Clean and degrease with ALSAN System Cleaning Agent. Abrade with ZEC disc.	ALSAN 104 / ALSAN 104 Spray	ALSAN 104* / ALSAN 104 Spray*	* Only for ALSAN Flashing Quadro. No primer required for ALSAN Flashing and ALSAN Flashing Jardin.
Untreated aluminium	Clean and degrease with ALSAN System Cleaning Agent. Abrade with ZEC disc.	ALSAN 104 / ALSAN 104 Spray	No primer required.	
Anodised aluminium		On request	On request	
Powder-coated aluminium	Clean and degrease with ALSAN System Cleaning Agent. Lightly abrade by hand.	On request	On request	
Coated aluminium (EBL)	Clean and degrease with ALSAN System Cleaning Agent. Lightly abrade by hand.	On request	On request	
Untreated steel	Clean and degrease with ALSAN System Cleaning Agent. Abrade with ZEC disc.	ALSAN 104 / ALSAN 104 Spray	No primer required.	
Galvanised steel	Clean and degrease with ALSAN System Cleaning Agent.	ALSAN 104 / ALSAN 104 Spray	No primer required.	Attention: Zinc acts as an anti-corrosion coating, so grinding is not recommended. Carry out adhesion tests on site.
Stainless steel (grades V2a, V4a, etc.)	Clean and degrease with ALSAN System Cleaning Agent. Abrade with ZEC disc.	ALSAN 104 / ALSAN 104 Spray	ALSAN 104 / ALSAN 104 Spray	Carry out adhesion tests on site.
Untreated lead	Clean and degrease with ALSAN System Cleaning Agent. Abrade with ZEC disc.	ALSAN 104 / ALSAN 104 Spray	ALSAN 104 / ALSAN 104 Spray	Carry out adhesion tests on site.
Cast iron	Clean and degrease with ALSAN System Cleaning Agent. Abrade with ZEC disc.	ALSAN 104 / ALSAN 104 Spray	No primer required.	
Brass	Clean and degrease with ALSAN System Cleaning Agent. Abrade with belt sander (40 – 60 grit) or by hand.	ALSAN 104 / ALSAN 104 Spray	No primer required.	Carry out adhesion tests on site.
BITUMINOUS WATERPROOFING SHEETS				
Talc-finished polymer-bitumen sheets (SBS-based), elastomer-bitumen sheets	Clean with wire brush or pressure washer.	No primer required.*	No primer required.	Attention: Deep clean required for generous talc finish. *ALSAN 171 primer recommended.
Slate-covered polymer-bitumen sheets (SBS-based), elastomer-bitumen sheets	Clean with wire brush or pressure washer.	No primer required.*	No primer required.	Loose slate chippings must be removed. *ALSAN 171 primer recommended.
Bituminous surfaces of SOPRALENE Flam sheets (with PP / PE films)	Completely remove the film.	No primer required.*	No primer required.	*ALSAN 171 primer recommended.
Bituminous surfaces of SOPRALENE Flam sheets (with fleece)	Completely remove the fleece.	No primer required.*	No primer required.	*ALSAN 171 primer recommended.
Slate-covered polymer-bitumen sheets (APP-based)	Clean with wire brush or pressure washer.	No primer required.*	No primer required.	Loose slate chippings must be removed. *ALSAN 171 primer recommended.
Bitumen adhesive (oxidised-bitumen-based)	Torch on slate-finished system-specific bitumen sheets.	No primer required.*	No primer required.	*ALSAN 171 primer recommended.

SUBSTRATES	PRETREATMENT	SUBSEQUENT LAYERS		NOTES
		PMMA	1-C PU/BITU-PU	
		ALSAN 770 TX / 775 TX	ALSAN Flashing quadro / ALSAN Flashing / ALSAN Flashing Jardin	
		For junctions, upstands and borders	For junctions, upstands and borders	
PLASTICS WATERPROOFING SHEETS				
Joint-filling compound, PU-based	Clean off any dust without use of solvents.	On request	On request	Check adhesion if necessary. Solvents that must not be used include ethanol, xylene, toluene.
Hybrid-polymer-based joint-filling compound (MS polymer)	Clean off any dust without use of solvents.	On request	On request	Check adhesion if necessary. Solvents that must not be used include ethanol, xylene, toluene.
Plastics waterproofing sheets PVC-based	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	No primer required	No primer required*	*Attention: In the case of BITU-PU (ALSAN Flashing) the PVC film must be bitumen-resistant.
Plastics waterproofing sheets TPO-based	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	ALSAN 103	ALSAN 103*	*Only possible with ALSAN Flashing quadro. Adhesion test required.
Plastics waterproofing sheets EPDM-based	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	ALSAN 103	ALSAN 103*	*Only required for ALSAN Flashing quadro. Adhesion test required.
Plastics waterproofing sheets EVA-based	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	On request	On request	
Plastics waterproofing sheets PIB-based	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	On request	On request	
PVCu-based mouldings PVCu	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	No primer required	No primer required	
PA-based mouldings 6/6.6	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	On request	On request	
GRP-based roof lights	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	No primer required	No primer required	
Polyester-based mouldings	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	No primer required	No application recommended.	Adhesion tests must be carried out on site for old polyester components.
Existing PMMA-based waterproofing for main area or details	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	No primer required	No application recommended.	
Polyethylene-based mouldings (e.g. pipes, penetrations)	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	On request	On request	
Polypropylene-based mouldings (e.g. pipes, penetrations)	Clean and degrease with ALSAN System Cleaning Agent, abrade with belt sander (40 – 60 grit)	On request	On request	

SUBSTRATES	PRETREATMENT	SUBSEQUENT LAYERS		NOTES
		PMMA	1-C PU/BITU-PU	
		ALSAN 770 TX / 775 TX	ALSAN Flashing quadro / ALSAN Flashing / ALSAN Flashing Jardin	
		For junctions, upstands and borders	For junctions, upstands and borders	
WOOD				
Untreated wood	Abrade with ZEC disc.	ALSAN 170 / ALSAN 171 / ALSAN 172	No primer required.	Not recommended for main surface.
Treated wood (with coat of paint)	Abrade with ZEC disc. Remove old coats of paint.	ALSAN 170 / ALSAN 171 / ALSAN 172	No primer required.	Not recommended for main surface.
Oriented strand boards (OSB)	Clean off any dust.	ALSAN 170 / ALSAN 171 / ALSAN 172	No primer required.	We recommend a second coating of primer if required.
Wood particle boards (ESB)	Clean off any dust.	ALSAN 170 / ALSAN 171 / ALSAN 172	No primer required.	We recommend a second coating of primer if required.
Particle boards	On request			
Screen-printed boards	Abrade with ZEC disc.	ALSAN 170 / ALSAN 171 / ALSAN 172	No primer required.	
Multi-layer boards	Clean off any dust.	ALSAN 170 / ALSAN 171 / ALSAN 172	No primer required.	Fill knotholes with ALSAN 074.
CRITICAL SUBSTRATES				
Oil-contaminated and greasy substrates	Grind using diamond disc or shot blast.	On request	On request	
High residual moisture and/or constant exposure to moisture from below / behind	Grind using diamond disc or shot blast.	On request	On request	
OTHER SUBSTRATES				
Ceramic slabs and natural stone slabs	Grind using diamond disc or shot blast.	On request	On request	Attention: Stoneware slabs must be removed if there is moisture below the slabs.
Gypsum boards (Rigips, Fermacell, …)	Clean off any dust.	On request	On request	

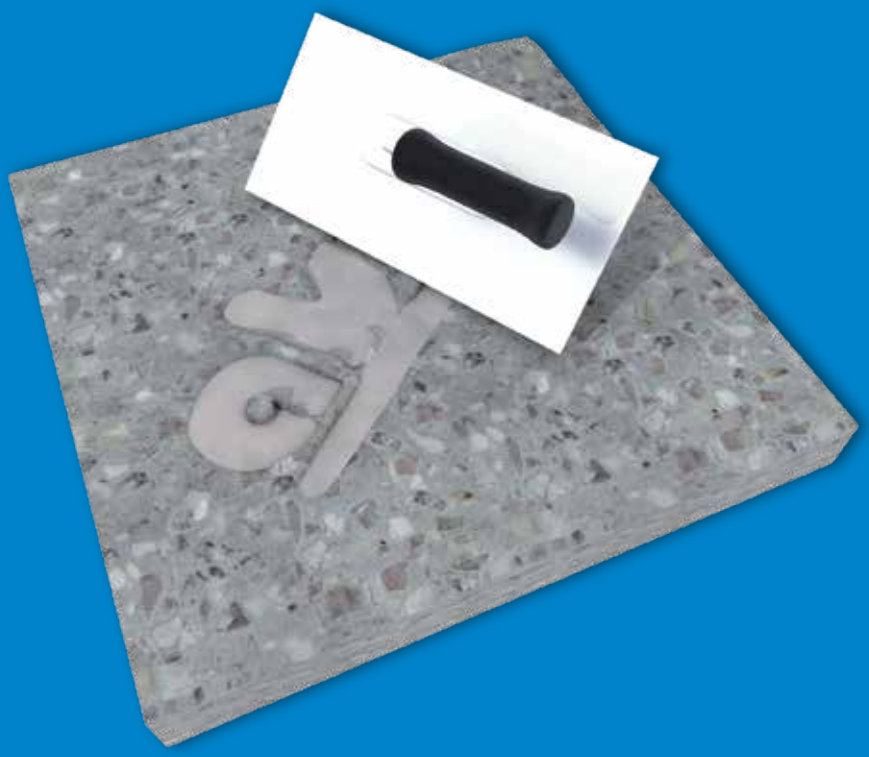
LEGEND	
1-C PU	One-component polyurethane
BITU-PU	Bitumen-polyurethane
2-C PU	Two-component polyurethane
PMMA	Polymethyl methacrylate
EVA	Ethylene vinyl acetate copolymer
GRP	Glass-reinforced plastic
EP	Epoxy resin
PP	Polypropylene
PE	Polyethylene
APP	Atactic polypropylene
PIB	Polyisobutylene
PCD	Polycrystalline diamond
SBS	Styrene butadiene styrene
PVC	Polyvinyl chloride
TPO	Thermoplastic polyolefin
EPDM	Ethylene propylene diene monomer
PA	Polyamide

ALSAN THE SUBSTRATES

SUBSTRATE CONDITIONING

It is particularly important that there are no cavities in the substrate when liquid resins are applied. This means that the substrates have to be conditioned accordingly.

The various methods that can be used are explained on the following pages.



THE SUBSTRATES

Substrate conditioning

Although liquid resins are ideal for junctions and organically shaped details, it is particularly important to avoid cavities. If there are craters, major indentations or joints in the substrate that cannot be levelled out by the resin itself or by a layer of primer, preventive measures have to be taken to prevent resin run-off, which would impair the reaction process or create flow paths for water under the membrane.

A range of preformulated, fast-curing products is available for the PMMA resins. A combination of EP resin and quartz sand can be used for the Flashing resins.

ALSAN 074 Surfacer

1. Surfacing
The rapid-curing and flexible PMMA resin is used as a surfacer to even out irregularities and to close pores and cracks before ALSAN waterproofing and surfacing systems are applied.

ALSAN 179

3. Stabilisation
The ALSAN 179 low-viscosity pore filler can be used to condition and stabilise concrete surfaces that are of inferior quality. The product floods the pores and capillaries to stabilise the surface of the concrete. Application of the stabiliser must be followed by a film-forming primer or a scratch coat.

ALSAN 072 RS Mortar

2a. Filling with mortar (for PMMA)
The three-component PMMA resin is used as a thick-layer filler for patches or larger areas.

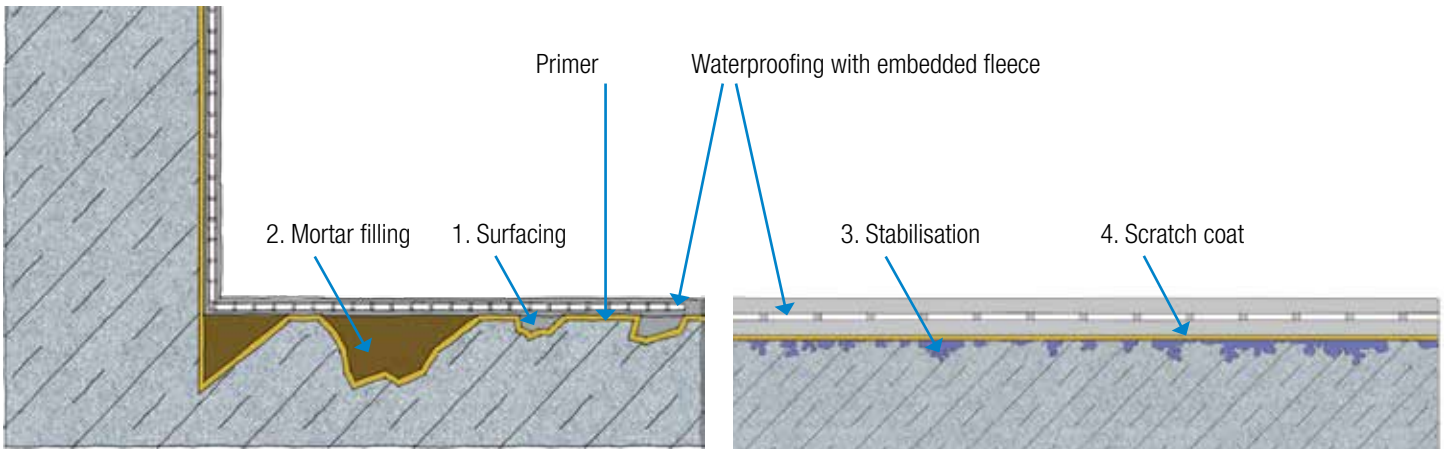
ALSAN 176
Scratch-coat primer

4. Scratch coat
The ready-to-use, filled and thixotropic resin is used as a scratch-coat primer to close pores and pinholes in absorbent substrates.

This product can be applied to horizontal and vertical surfaces as a pretreatment before PMMA systems are installed.

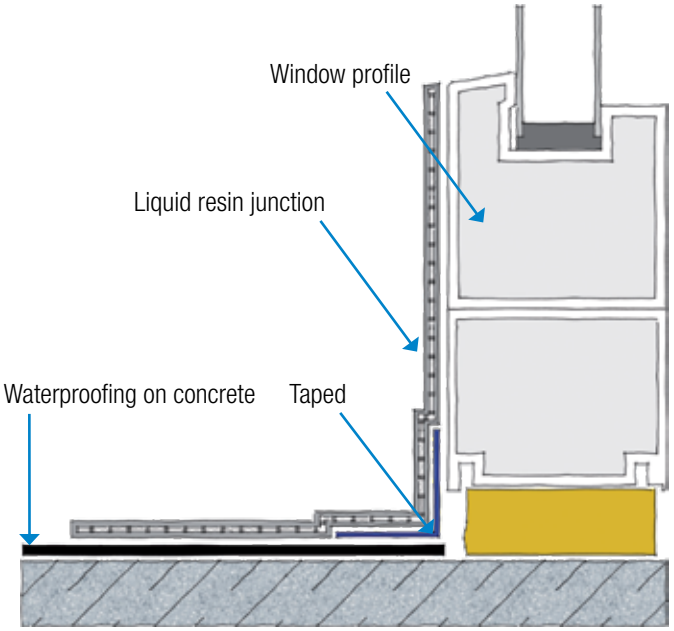
ALSAN EPR Primer

2b. Filling with mortar (for PU)
A combination of EP resin and quartz sand is used as a mortar for ALSAN Flashing resins.

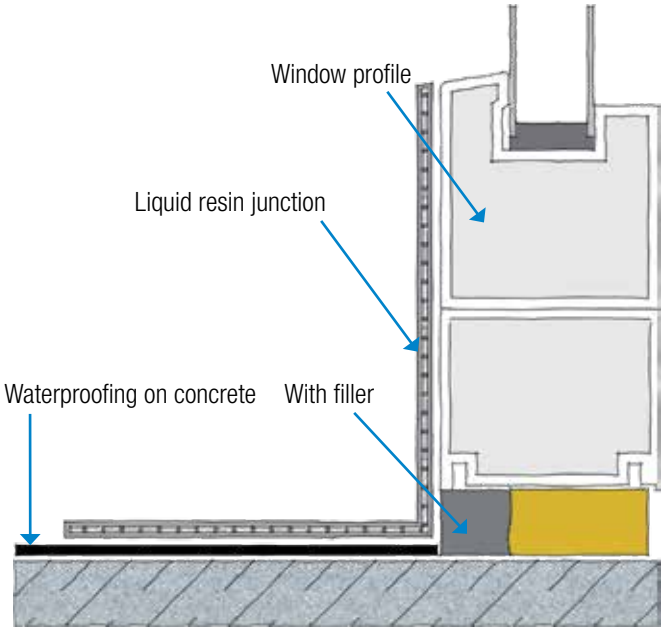


Another solution is to use PE-coated adhesive tapes, which can prevent resin run-off in various cases.

Window, taped



Window, with filler



THE SUBSTRATES

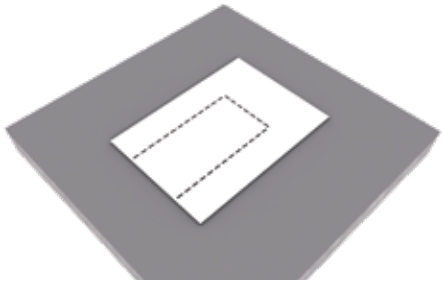
Pull-off adhesion tests

Especially with refurbishment projects, it often happens that a resin has to create a junction with an indeterminable substrate, such as plastics sheeting. It is therefore impossible to generalise about the compatibility or adhesion of a liquid resin in such cases.

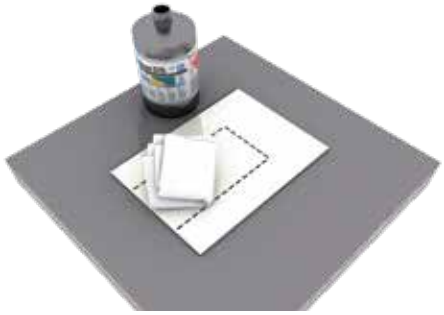
Frequently an adhesive-pull test has to be carried out on site to determine whether a good bond can be achieved. A bonding agent or primer, as indicated in the substrates table, is likely to prove useful in such instances.

The further procedure is as follows (plastics sheeting is used in this illustration):

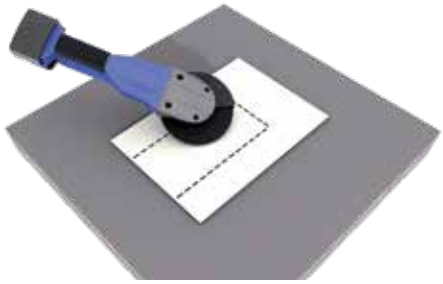
1. Prepare a test specimen size A4.



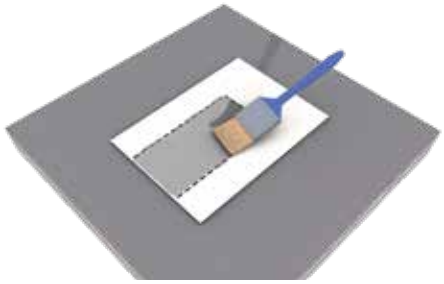
2. Mark the area for the adhesive pull test (20 x 10 cm).



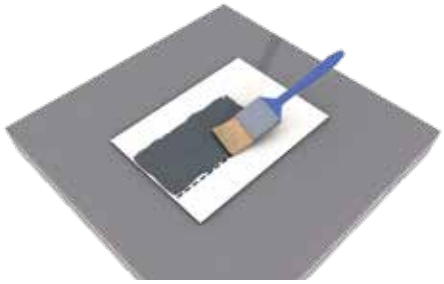
3. Clean the area (ALSAN 076) for the adhesive pull test and allow the product to flash off.



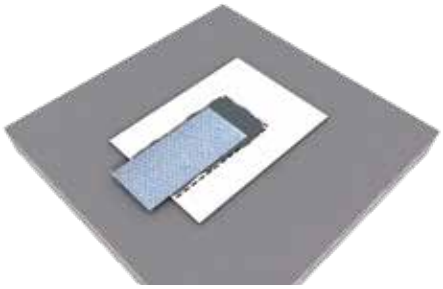
4. Abrade e.g. with ZEC disc (see information sheet 101 Substrate preparation)



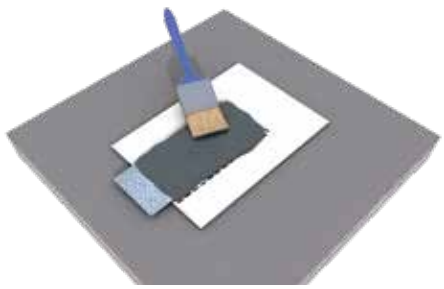
5. Apply primer if required (see information sheet 102 Substrate pretreatment).



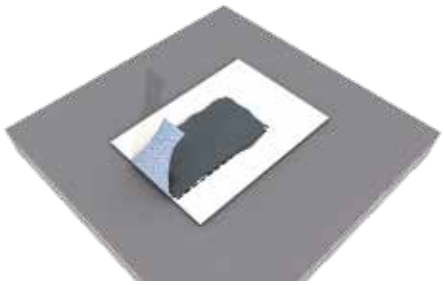
6. Apply waterproofing resin.



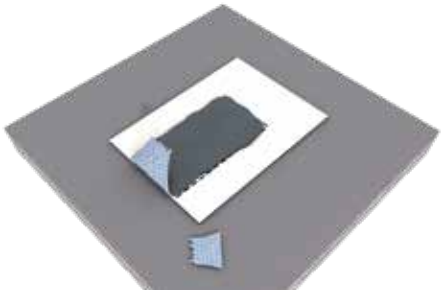
7. Embed the fleece.



8. Apply another coat wet in wet.



9. Allow sufficient reaction time, then pull off with a shearing action, increase tensile force.



10. Continue until fleece fatigue is reached.

The decision about whether adhesion is adequate is dependent on careful individual assessment. On no account must it be possible for the materials to become detached merely due to the shearing action. If separation is only possible by exerting a high level of shearing force, then adhesion is adequate. The ideal result is for the applied material to tear off.

SOPREMA GmbH can only provide a binding statement about functionality if samples are sent in for laboratory testing. For this we require two A4-size specimens.

ALSAN APPLICATION

TOOLS AND ACCESSORIES

Thorough work preparation, the right tools and practical accessories facilitate the successful application of waterproofing and surfacing systems.

You will need:

1. **Grinder with a suitable abrasive disc**
2. **Sandpaper**
3. **Scissors**
4. **Adhesive tape (e.g. SOPRATAPE²/ SOPRATAPE³)**
5. **Stirrer**
6. **Mixing bucket & ALSAN cup (for measuring out catalyst)***
7. **Gloves** **
8. **Brush**
9. **Roller frame with a suitable gloss roller**
10. **Cleaning agent and suitable cloth for application**
11. **Fleece**
12. **Hand cleaner paste**

* For applying ALSAN 770 TX
** For further protective equipment see safety data sheet.

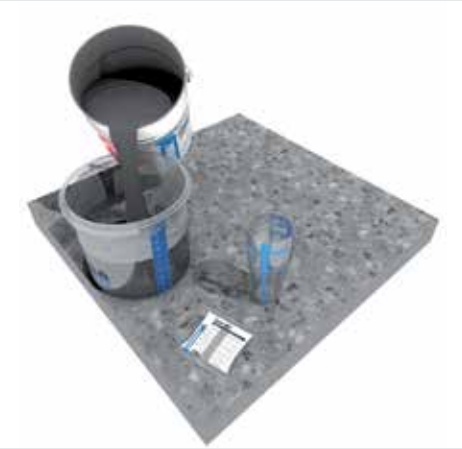
APPLICATION

Practical accessories

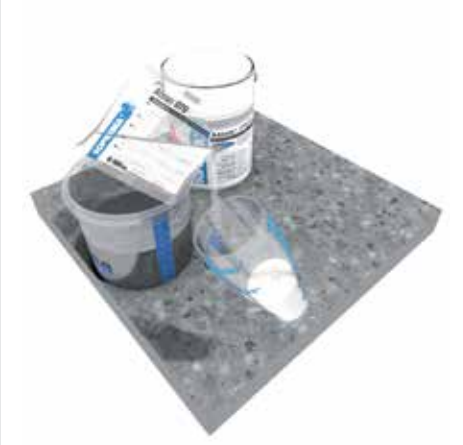
The mixing bucket and ALSAN cup (graduated beaker) are used to measure out exact amounts of catalyst for ALSAN PMMA products.

1. Lay out the materials and tools.

2. Stir the resin thoroughly before taking some of the product out of the container.

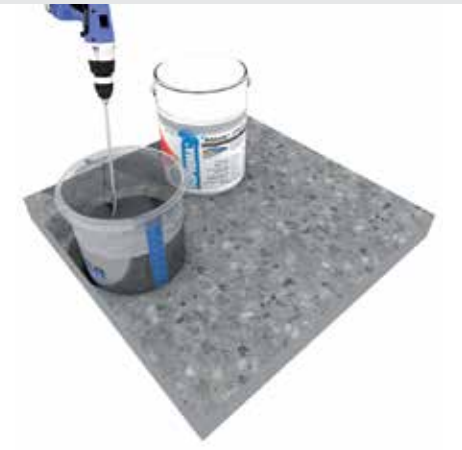


3. Pour the required amount based on m^2 consumption into the mixing bucket – weighing out is not required, as the bucket is scaled.

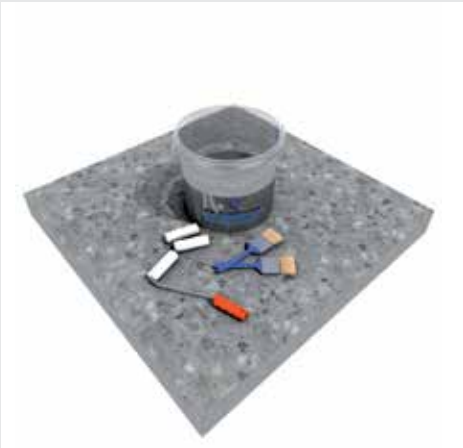


4. Use the graduated ALSAN cup to measure out the catalyst according to the product information sheet.

5. Add the catalyst to the resin.



6. Stir thoroughly.
Note: Clean the mixing tools immediately after use.

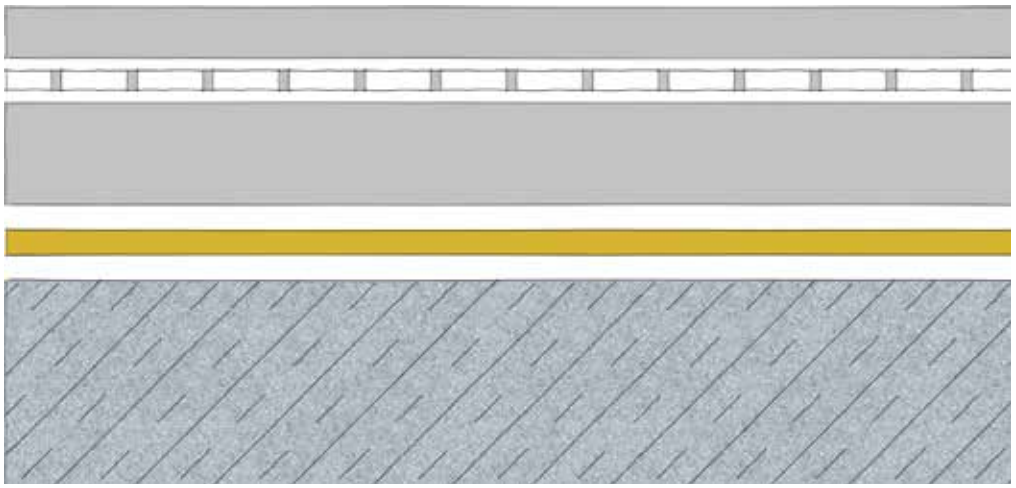


7. Ready for application.

APPLICATION

Basic conditions

The substrates table on page 13 indicates whether a primer or bonding agent is necessary or recommended due to more demanding requirements for the substrate encountered on site. In conjunction with the required and specified substrate preparation, this creates a durable, low-maintenance junction. The fundamental product-specific application steps must be followed. Essentially the following proportion applies to all the resins listed here:



Apply 1/3 of the resin on top
Embed the fleece
Apply 2/3 of the resin underneath the fleece

Primer, if required

ATTENTION: For ALSAN Flashing and ALSAN Flashing Jardin (BITU-PU products) apply 2/3 of the resin, embed the fleece, brush with a thin layer of resin and then carry out a touch test. Only then should the remaining 1/3 of resin be applied as the covering layer. See also p. 31 “Installation - step by step”.

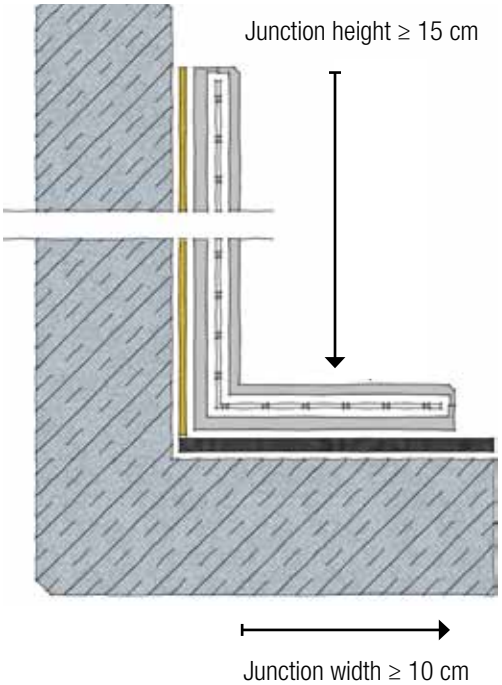
1. Preparation of materials

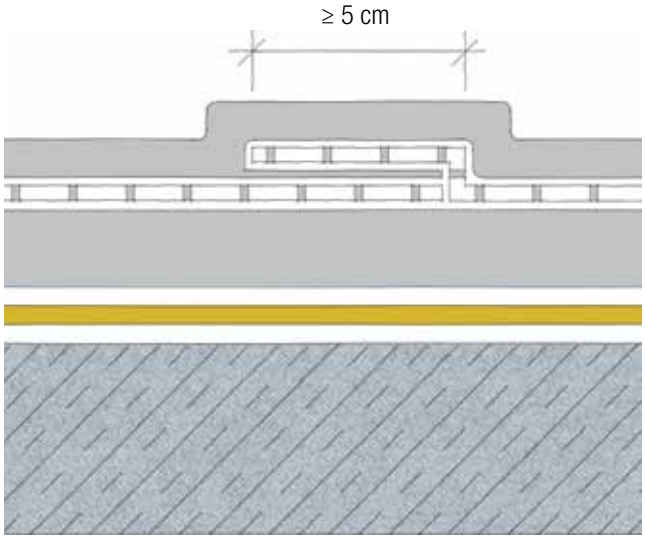
After the substrate has been assessed for stability, moisture and potential separating layers or chemical influences, the appropriate substrate preparation method is chosen and implemented. As a next step, the substrates table has to be checked to determine whether a primer is required.

If the table does not show the substrate encountered on site, we urgently recommend that you contact SOPREMA Application Technology.

2. Junction heights and overlaps

If the substrate has been duly prepared and, if required, primed as specified, the fleece is cut to size. Basically the junction height or width must be chosen so that compliance with the relevant regulations or standard is ensured. As a general rule, standard junctions will have a junction height ≥ 15 cm above the water-bearing level and a junction width ≥ 10 cm. Exceptions may be possible e.g. in the area of barrier-free construction. When the product is applied (wet in wet) the sections of fleece must overlap by at least 5.0 cm. There must also be sufficient material between the layers of fleece.

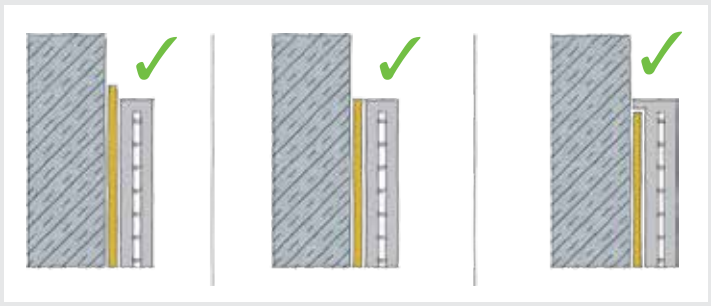


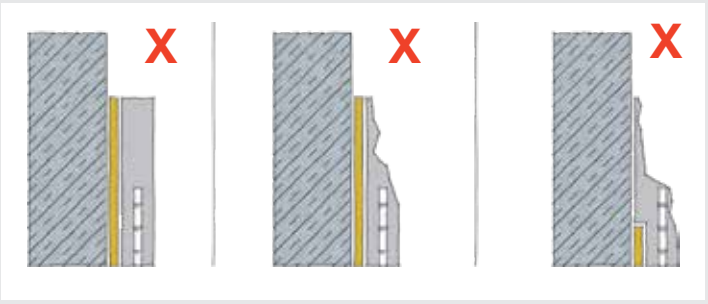


3. Edges

When working with liquid resins, particular attention should be paid to edges as well as the necessary and stipulated layer thickness. This is controlled by the amount of resin used and the matching system-specific fleece. Only in areas where the fleece has been fully embedded in the correct quantity of resin throughout can it be said that the waterproofing system was installed as specified. Areas where no fleece, but sufficient resin, was applied are only regarded as surfacing. Furthermore, if the resin is spread very thin, the resin may not cure properly.

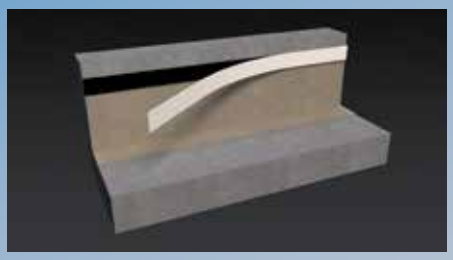
The edges of a junction must be finished so that the fleece is embedded fully and evenly. We therefore recommend positioning the masking tape prior to application so that 5 - 8 mm of the layer of resin remains above or at the side of the actual fleece junction.

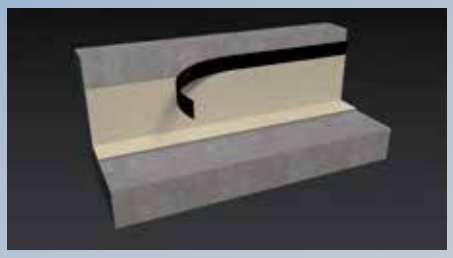




SOPRATAPE² by SOPREMA

smart sticking





Equipment
Length: 25 m/roll; width: 6 cm

- Two layers
- For the ALSAN Flashing system and simple junctions with ALSAN PMMA

SOPRATAPE² (twin layer) is a unique adhesive tape available from SOPREMA for the optimised application of ALSAN liquid resins. This saves valuable time and avoids application errors. Especially in the case of PMMA-based liquid resins, the layers are often applied one after the other in just a few hours. Consequently reapplying the masking tape before each new coating is unavoidable, which takes up a large proportion of working time.

SOPRATAPE – the highlights

- All layers can be applied with a single application of masking tape
- Extremely accurate finishing of edges
- Site-compliant – surface and adhesive strength of the individual layers are designed to peel off perfectly on site
- Application errors (skips) are avoided and the projecting edges of the tape, thanks to one flush side and the other offset approx. 2.5 mm, make it very easy to peel off

APPLICATION

Consumption rates

Product information sheets	
Products	**Description**
ALSAN PMMA SYSTEMS	**Polymethyl methacrylates**
ALSAN 170 Primer	Primer for absorbent substrates
ALSAN 171 Combi Primer	Combi primer for absorbent substrates, as well as mastic and rolled asphalt
ALSAN 172 Asphalt Primer	Primer for asphalt and bitumen substrates
ALSAN 103 TPO/FPO Primer	Bonding agent for FPO waterproofing sheets (FLAGON-based)
ALSAN 104 Metal Primer	Bonding agent for metals
ALSAN 176 Scratch-Coat Primer	Scratch-coat primer for absorbent substrates
ALSAN 770 Waterproofing Resin	Waterproofing resin for main areas
ALSAN 770 TX Waterproofing Resin	Waterproofing resin for details
ALSAN 970 F Finish	Pigmented PMMA-based finish (sealer) – RAL colours
ALSAN 072 RS Mortar	Repair mortar
ALSAN 074 Surfacer	Surfacer
ALSAN 075 Fibre Surfacer	Waterproofing resin for special details
ALSAN PUR SYSTEMS	**Polyurethanes**
ALSAN EPR Primer	Two-component epoxy resin used as a primer on mineral substrates.
ALSAN Flashing quadro waterproofing resin	One-component PU waterproofing resin for details
ALSAN Flashing waterproofing resin ALSAN Flashing Jardin waterproofing resin	One-component BITU-PU waterproofing resin for details

Layers	Consumption per m² (dependent on substrate)				Overlayable			
	Min. (per layer)	Max. (per layer)	Pot life (at 20°)	Rain-proof (at 20°)	Min.	Max.	Walkable	Fully cured
1	0.4 kg	0.6 kg	15 min	30 min	45 min	–	3 h	1 day
1	0.4 kg	0.6 kg	15 min	30 min	45 min	–	3 h	1 day
1	0.4 kg	0.6 kg	15 min	30 min	45 min	–	3 h	1 day
1	0.1 kg	0.15 kg	–	1 h	1 h	3 days	1 h	1 day
1	0.2 kg	0.3 kg	–	1 h	1 h	3 days	1 h	1 day
1	0.8 kg	1.5 kg	15 min	30 min	15 min	–	3 h	1 day
1	2.5 kg	2.8 kg	15 min	30 min	45 min	–	3 h	1 day
2	1.0 kg	1.5 kg	15 min	30 min	45 min	–	3 h	1 day
1	2.5 kg	2.8 kg	15 min	30 min	45 min	–	3 h	1 day
2**	1.0 kg	1.5 kg	15 min	30 min	45 min	–	3 h	1 day
1	0.4 kg	0.6 kg	15 min	30 min	45 min	–	3 h	1 day
1****	–		20 min	30 min	1 h	–	3 h	1 day
1***	1.0 kg	3.0 kg	15 min	30 min	45 min	–	3 h	1 day
1	2.5 kg	2.8 kg	15 min	30 min	45 min	–	3 h	1 day
2**	1.0 kg	1.5 kg	15 min	30 min	45 min	–	3 h	1 day
1	0.3 kg	0.5 kg	20 min	1h	2 h	3 days	2 h	1 day
1	3.0 kg	3.2 kg	–	4 h	3 h	3 days	6 h	10 days
2**	0.3 kg	1 kg	–	4 h	3 h	3 days	6 h	10 days
1	1.5 kg	1.8 kg	–	1 h	1 h	3 days	2 days	10 days
2	0.8 kg	1.0 kg	–	1 h	1 h	3 days	2 days	10 days
3*	0.3 kg	0.4 kg	–	1 h	–	–	2 days	10 days

General comments: Consumption is based on smooth and even surfaces

* 3rd optional layer for Flashing, if slate chippings or quartz sand are applied as topping

** 2nd layer for ALSAN 770 TX/ALSAN Flashing quadro = optional or if slate or quartz is applied as topping

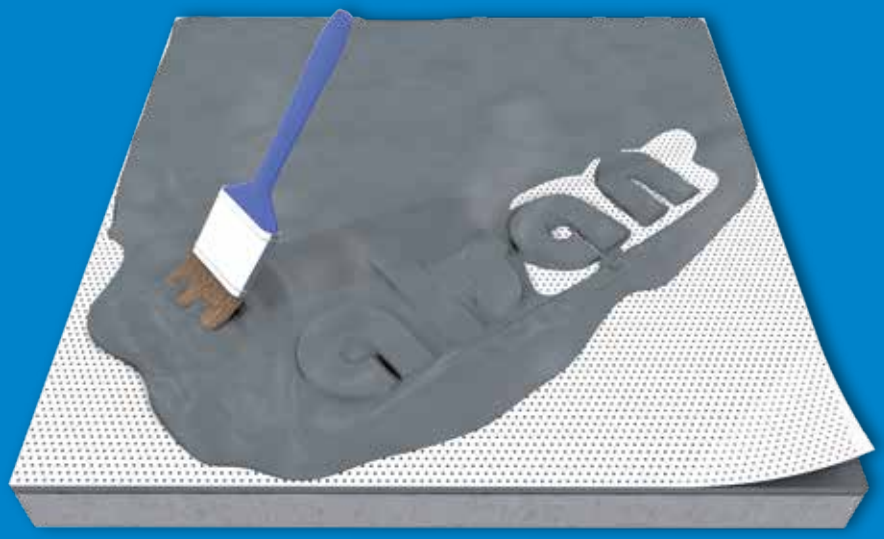
*** Several layers possible, max. 10 mm per layer

**** Several layers possible, max. 50 mm per layer

ALSAN APPLICATION

INSTALLATION – STEP BY STEP

The step-by-step guide on the following pages shows how a liquid waterproofing system is applied to details, using ALSAN resins such as ALSAN 770 TX, ALSAN Flashing quadro or ALSAN Flashing.



DER EINBAU – STEP BY STEP

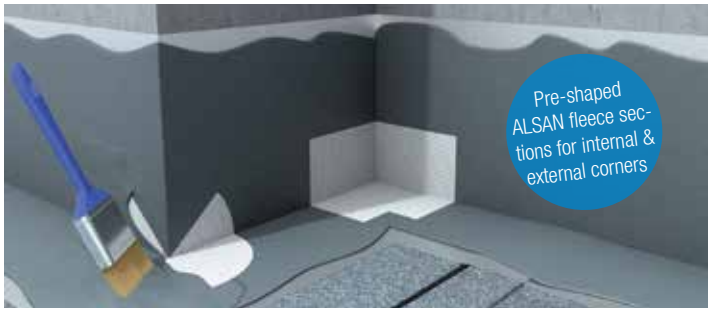
1. Wall junction (upstand) – ALSAN 770 TX (PMMA) is applied in this illustration

1. Mineral junction areas are abraded before waterproofing work begins. Loose slate chippings on bitumen sheets are removed with a wire brush. PE-coated masking tape is applied. The masking tape is also used to protect joints or material transitions. The dust is then removed from the surface.

2. Primer is applied to the main area, if required, according to the substrates table. Slated sheets do not need to be primed.
The primer is applied with a brush or roller.
Consumption: approx. 0.5 kg/m², depending on roughness

3. The embedding layer is applied after an interval of approx. 20 minutes. A generous amount of material (approx. 1.5 kg/m²) is applied, especially at material transitions, in corners and on vertical surfaces.

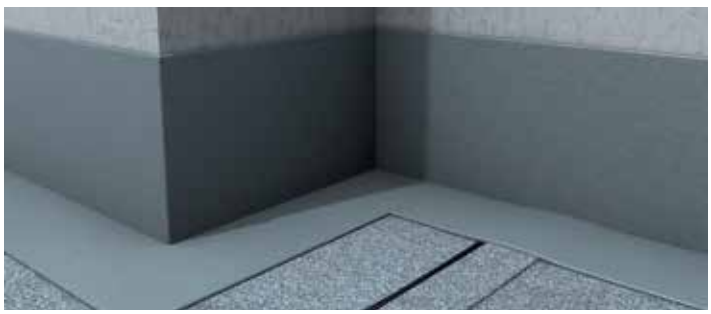
4. The fleece, already cut to size, is placed into the fresh embedding layer and immediately worked into the resin with a roller to remove any bubbles. Excess material passes up/out through the open-pored fleece. Too little material was applied if any white patches are still visible when the fleece is folded back. It is essential that additional material is applied between the layers of fleece at the points of overlap. Additional layers of fleece must be embedded on internal and external corners and sufficient material again applied as embedding layer in those areas. This step can also be carried out wet in wet, which means there is no interval between the individual applications of these layers.



5. Without any interval, the fleece can be covered immediately with another layer of resin.

Consumption: approx. 1,0 – 1,5 kg/m².

Sufficient material must also be applied at the edges along the masking tape.



6. The masking tape must be removed as soon as the resin has been applied.

Any delay in removing the masking tape, i.e. once the curing process has started, may result in detachment near the edges. If the material has already hardened, the adhesive tape may need to be removed with a cutter. This is not only time-consuming, but also dangerous, since it could damage the freshly applied waterproofing system.

INSTALLATION – STEP BY STEP

2. Double T beam – ALSAN Flashing quadro (PU) is applied in this illustration

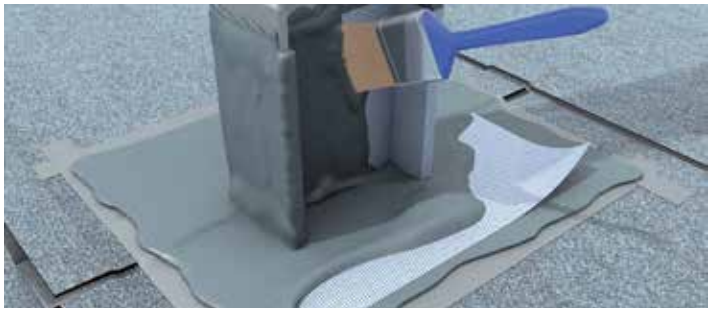
1. Cleaning
The junction areas must be cleaned and the cleaning agent allowed to flash off before waterproofing work starts.

2. Grinding
Metal junction areas must be abraded.
Loose slate chippings on bitumen sheets are removed with a wire brush.

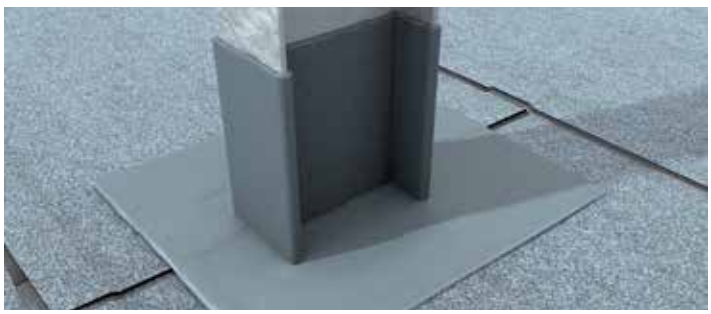
The dust is then removed from the surface.

3. Application of masking tape
The borders are marked with PE-coated masking tape. The masking tape is also used to decouple joints or delicate material transitions.

4. Application of resin (first layer)
The embedding layer is applied. A generous amount of material (approx. 2 kg/m^2) is applied, especially at material transitions, in corners and on vertical surfaces. Any excess material is automatically pushed outwards or upwards when the fleece is embedded.



5. Embedding the fleece and application of second layer of resin The fleece is placed in the fresh embedding layer. Any air bubbles are removed with a roller. Too little material was applied if any light patches are still visible when the fleece is folded back. It is essential that additional material is applied between the layers of fleece at the points of overlap. Without any interval, the fleece can be covered immediately with another layer of resin.
Consumption: approx. 1 kg/m^2
Sufficient material must also be applied at the edges along the masking tape.



6. Finished junction
If a different finish is required (grit, slate chippings etc.), an additional topping layer (receiver) must be applied at a consumption rate of approx. 1 kg/m^2. The surface protection is broadcast into the fresh layer.

INSTALLATION – STEP BY STEP

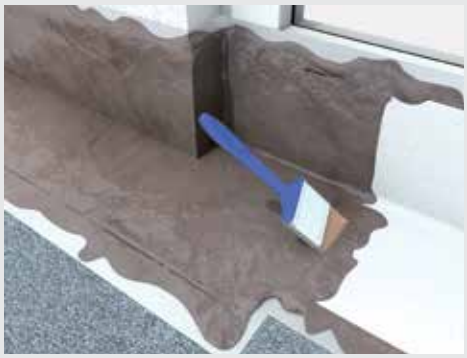
3. Window / door junction – ALSAN Flashing (BITU-PU) is applied in this illustration

1. Cleaning
The junction areas must be cleaned and the cleaning agent allowed to flash off.

2. Grinding
Plastics profiles are lightly abraded. Loose slate chippings on bitumen sheets are removed with a wire brush. The dust is then removed from the surface ...

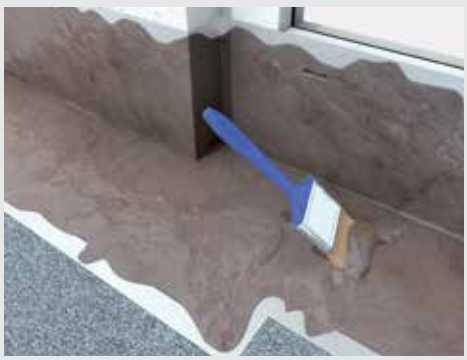
3. Application of masking tape
... and the borders are marked with PE-coated masking tape.

4. Application of resin
The first layer is applied at a consumption rate of approx. 1,5 kg/m².



5. Embedding the fleece
The fleece is embedded in the resin, with the mesh texture facing down, air inclusions are removed and the fleece is shaped to the substrate. A thin layer of resin is brushed over the fleece.

6. Touch test
A touch test is used to check that the first layer has dried out completely.



7. Overlaying
The second layer is applied. Consumption approx. 1,3 kg/m².

8. Removing the adhesive tape
The masking tape is removed as soon as the resin has been applied. Further mechanical fixing can be dispensed with.

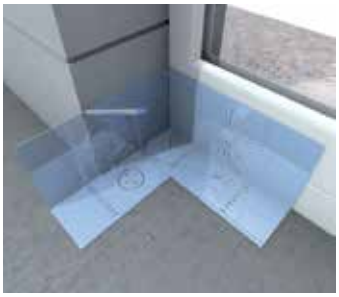
9. Optional surface protection
If a different finish is required (grit, slate chippings etc.), an additional topping layer (receiver) must be applied at a consumption rate of approx. 0.3 kg/m². The surface protection is broadcast into the fresh layer.

ALSAN Smartform

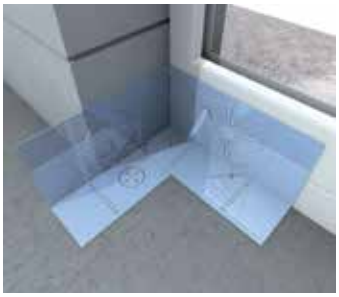
A clean and attractive finish is particularly important at door and window junctions and the internal and external corners in those areas. ALSAN Smartform is a clever tool designed for this purpose, a template that can be used to create perfect and professional junctions with ALSAN liquid resin.

How it's done:

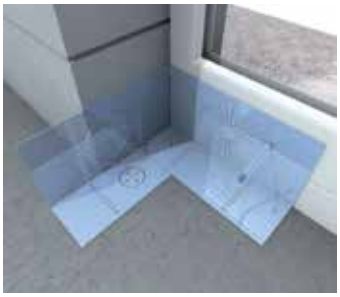
1. The ALSAN Smartform template can be used to create clean window junctions and corner details with different junction heights – without elaborate measuring.



2. ALSAN Smartform is simply bent into the corner and the edges of the building are marked on the template.

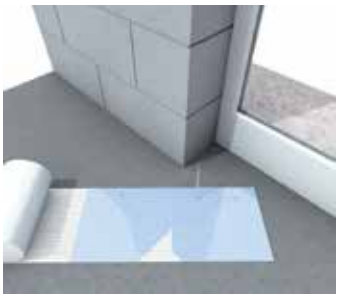


3. The desired or required junction heights are marked in the same way.

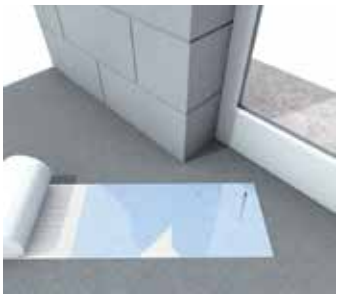


4. For horizontal junctions, the parallel cut-out sections can be used as a guide. For sloping junctions, the cut-outs are selected to suit the incline.

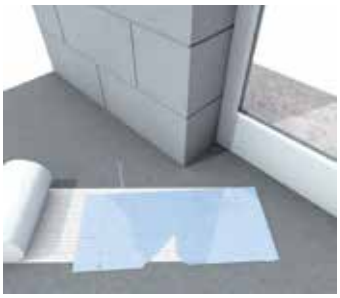
5. Once all the borders have been removed, the pattern can be transferred to the fleece.



6. The areas for the cut-out are then simply drawn in.



7. The corner cut and the location of the folds are also transferred.



8. The edges of the building are marked and the line extended using the outside of the ALSAN Smartform tool.

9. The fleece is cut once all these markings have been transferred.

10. The shaped section of fleece will then fit into the corner detail with millimetre precision.

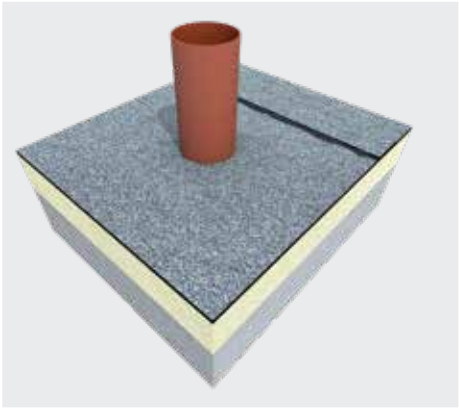
11. Once all the other fleeces and shaped sections have been fitted, the resin can be applied.

12. The result is a perfect ALSAN junction, moulded to the differences in height.

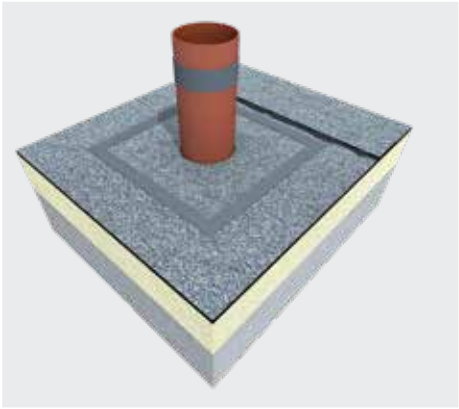
INSTALLATION – STEP BY STEP

4. Pipe penetration / vent with shaped fleece sections (ALSAN Flashing quadro)

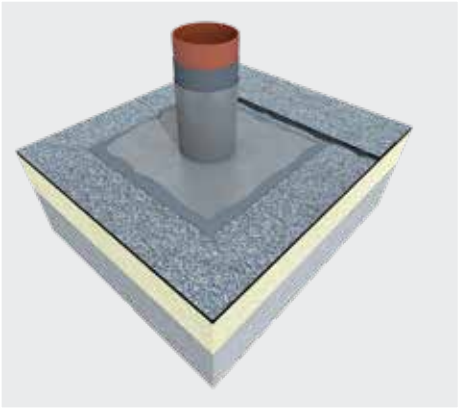
Pre-shaped ALSAN fleece sections for internal & external corners



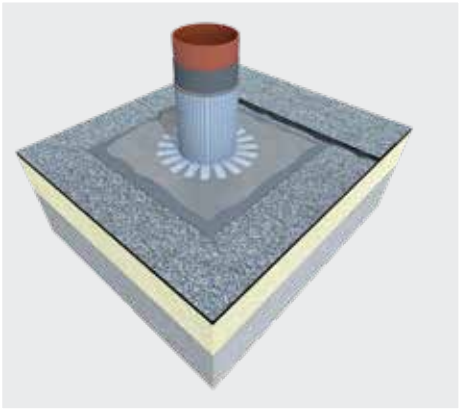
1. Vent pipe



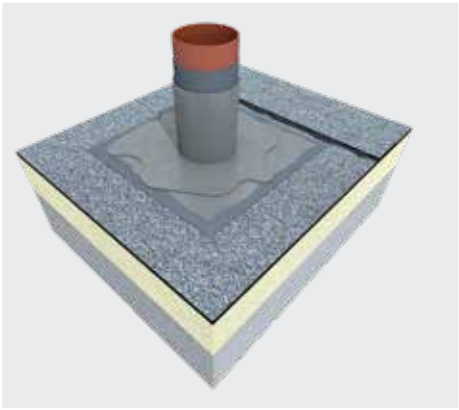
2. Application of masking tape



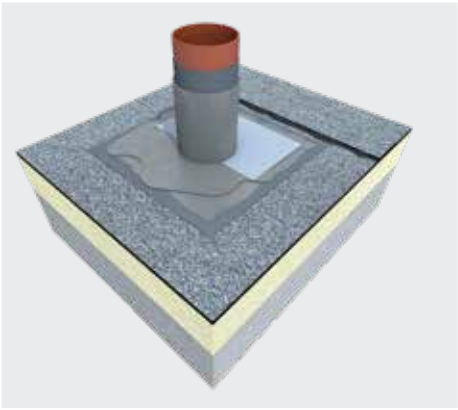
3. The first layer of resin is applied.



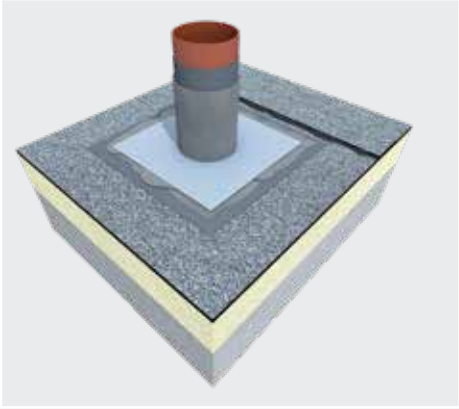
4. The special collar is embedded.



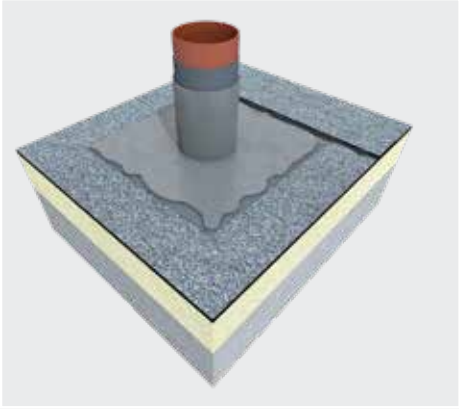
5. This is overlaid with more resin.



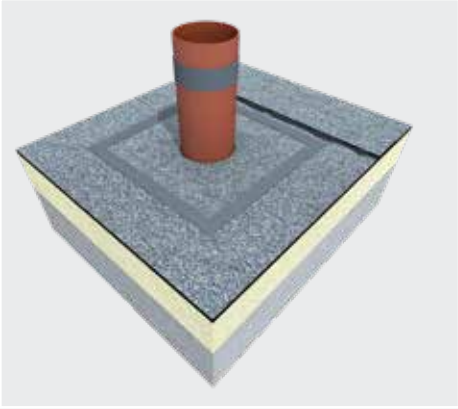
6. The flat collar is embedded – part 1.



7. The flat collar is embedded – part 2.



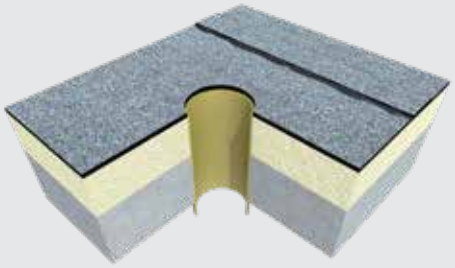
8. The covering layer is applied.



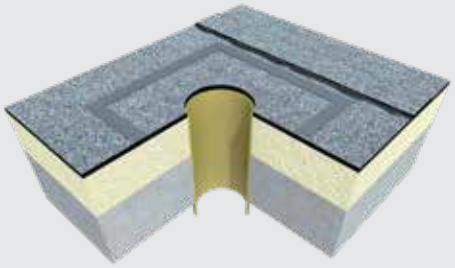
9. Finished!

INSTALLATION – STEP BY STEP

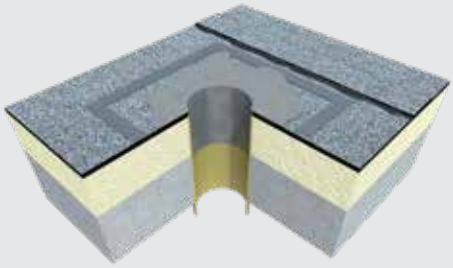
5. Gully with shaped fleece sections (ALSAN 770 TX is applied in this illustration)



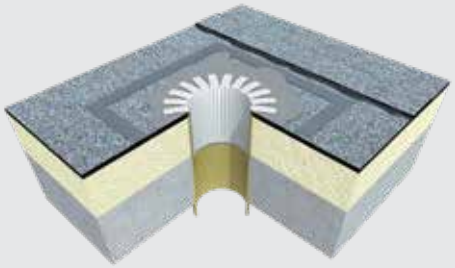
1. Gully



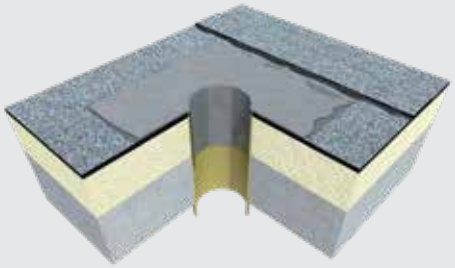
2. Application of masking tape



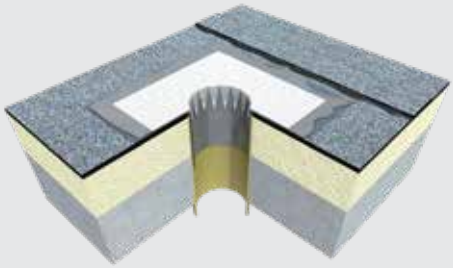
3. The first layer of resin is applied.



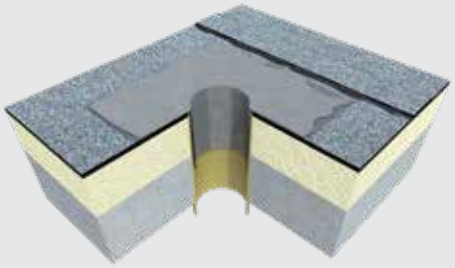
4. The special collar is embedded.



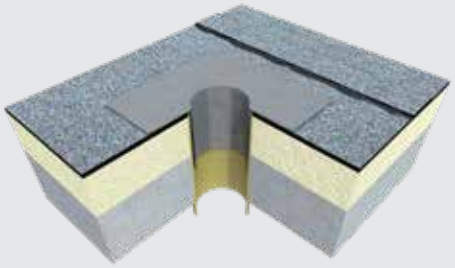
5. This is overlaid with more resin.



6. The star-shaped collar is embedded.



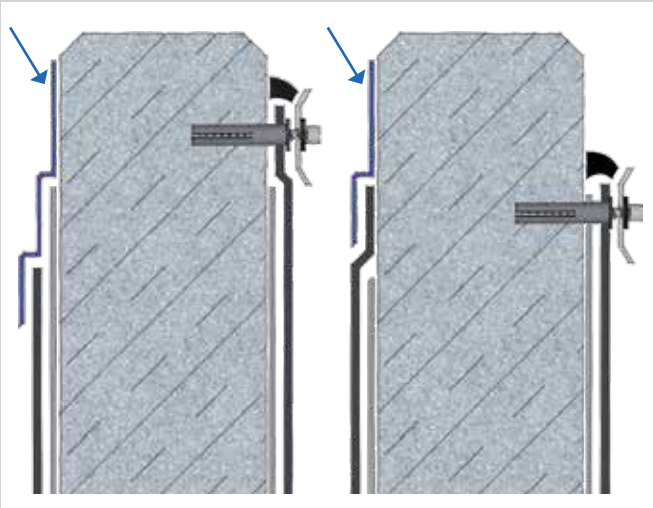
7. This is overlaid with more resin.



8. The masking tape is removed.

Alternative to mechanical fixings

Liquid resins can be used as an alternative to mechanical fixings to secure sheets in position so that they do not slip in junction / upstand areas.

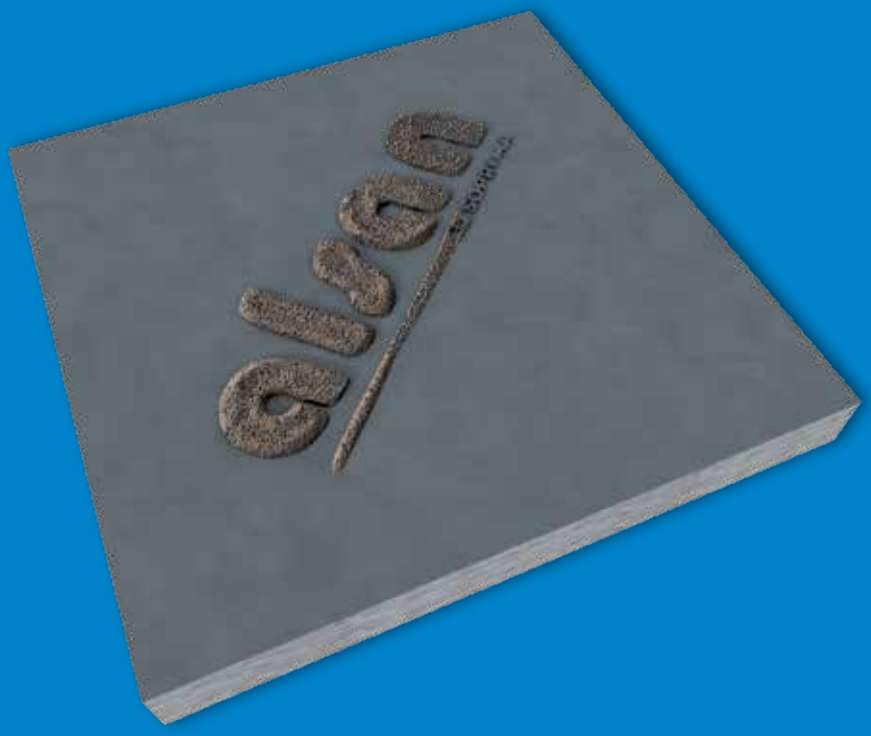


Given a suitable substrate, the cap piece can be replaced by liquid resin. If the substrate is properly prepared, this can create a low-maintenance and cost-effective finishing edge that is extremely resistant to the formation of water flow paths underneath. Furthermore, appropriate laboratory tests have shown that it can absorb extreme tensile forces and that it secures the bitumen sheeting in position even at high temperatures.

The upper end of such junctions must be protected against rain. This can be done by fitting clamping profiles, for instance. If these are exposed to weathering, they must be attached with corrosion-resistant fixings. If the cap piece is installed with a combination of screws and plugs, holes have to be drilled near the finishing edge. A sealing compound is sprayed onto the upper section of the clamping profiles. This waterproof joint is designed to act as a bridge between the vertical substrate and the clamping profile and protect the entire section against the formation of flow paths for water underneath the waterproofing. Unlike the installation of liquid resins, the substrate in such cases is rarely prepared fully, which means that this combination can soon develop weak spots. Because of their limited service life, joints filled with sealant must be repaired at regular intervals.

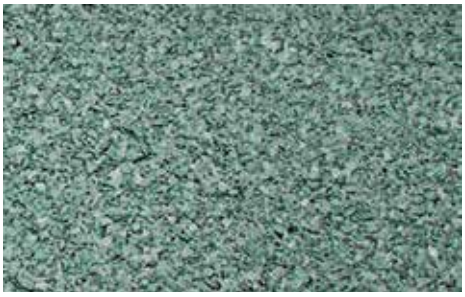
SURFACEDESIGN

Surface design is a key element of liquid-applied waterproofing and surfacing systems. The addition of slate chippings in junction areas can, for instance, match the finish perfectly to bitumen sheeting, thereby integrating the surface harmoniously with the roofscape.



Different granules can be used to modify the appearance of the finish and its specific technical properties. Kiln-dried quartz sand in a range of particle sizes helps to adjust the skid resistance in line with the anticipated utilisation of the flooring.

The available selection of Colorquarz and Deco Mix products in several colour combinations allows not only the skid resistance, but also the colour of the surface to be varied. This wide range of options means that there are no limits as regards functionality, design and aesthetic appeal.



Slate
To match existing bituminous waterproofing and improve the mechanical properties.

Quartz
To improve the mechanical properties or as a bonding coat for the subsequent build-up, such as rendering systems or ceramic tiles.

Finish colour
Based on the RAL colour range, this matches the existing substrate and slightly improves the mechanical and chemical properties.

Surface protection

The protection against mechanical damage for junction areas as specified in standards and regulations initially refers to all kinds of junctions that can be created manually. On closer examination, some differences are noticeable as regards junctions created with sheeting (bituminous or high-polymer) and junctions created with liquid resin. Sheeting, for instance, has to be permanently fixed into position by mechanical means to prevent it from slipping. This is not required for liquid resins, as these create a bond with the substrate that prevents flow paths for water forming underneath the membrane. This is also why isolated points of mechanical damage do not necessarily cause leaks.

The ALSAN PMMA and ALSAN Flashing quadro liquid resins are classified as P4 according to the performance categories of ETAG 005. This represents a particularly high imposed load and resistance to mechanical damage. According to the ETA for the product, it is suitable for direct foot traffic and it can also be used as a roof terrace. That is why, from SOPREMA's point of view, additional protection for junctions in the form of sheet metal flashing is not necessary.

If additional protection is nevertheless desired or demanded, a (PMMA) finish consisting of ALSAN 970F can be applied as light surface protection. If sheet metal flashing is to be installed to protect the junctions, we recommend non-penetrative fixings, using ALSAN 074 as a flexible filler.

PRODUCTFACTSHEETS

ALSAN 770 TX Waterproofing Resin

Product description:
ALSAN 770 TX is a highly flexible, fast-curing waterproofing resin that is suitable for application to details and upstands.

Area of application
ALSAN 770 TX is used as a waterproofing resin with an embedded fleece for flameless application to interfaces and borders as well as for upstand details.

Properties
- ETAG 005 with CE marking
- Hard roofing BRoof(T1)
- Service life: W3; imposed load: P1 - P4
- Climate zones: M, S; roof slope: S1 - S4
- Surface temperature: TL4/TH4
- Root-resistant according to FLL test methods
- Rendered thixotropic for vertical interfaces, upstands and details

Application conditions
Temperature range: 0 °C min. to 35 °C max.
Atmospheric humidity: 90 % max.
The substrate temperature must be at least 3 °C above the dew point during application and curing.
Adequate ventilation must be installed in enclosed spaces.

Application
Preparation of the substrate: The substrate must be prepared to ensure that it is sound, dry and free from adhesion-reducing residue.[1] [2]
Mixing: Stir the resin thoroughly before application. If less than a full container is to be used, poure the required amount into a clean mixing tub. Add the correct quantity of catalyst for the amount of resin being used and mix with a slow-speed stirrer for at least 2 minutes until a smooth consistency is achieved.

Application: Apply ALSAN 770 TX with a roller or brush. As a rough guide, approx. 2/3 of the resin should be applied wet in wet underneath the fleece and 1/3 above the fleece. Fleece overlaps must be at least 5 cm wide. Also coat fleece overlaps with resin.
Cleaning: If work is interrupted or when it is completed, clean the tools thoroughly with ALSAN System Cleaning Agent within the pot life of the product.

Consumption
2.5 kg/m² min. on smooth, even surfaces

Required amounts of catalyst
Table for 10 kg ALSAN 770 TX
Stir for at least 2 minutes.

Temperature in °C	ALSAN 070 Catalyst [g]	ALSAN 070 Catalyst [%]
0	600	6
5	400	4
10	400	4
15	200	2
20	200	2
25	200	2
35	150	1.5

Reaction time at 23 °C
Pot life: approx. 15 minutes
Rainproof: approx. 30 minutes
Overlayable: 45 minutes min.
No maximum overlay time
Loadable: approx. 180 minutes

Technical data
Density at 23 °C: 1.25 g/cm³
Viscosity at 23 °C: 15000 mPas
Sd value: 9 m

[1] Please refer to our “Information sheet 101 : Substrate preparation".

[2] Please refer to our “Information sheet 102 : Substrate pretreatment".

SOPREMA SAS
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ALSAN 770 TX Waterproofing Resin

System accessories
ALSAN Fleece
ALSAN 070

Pack size
5 kg drum
10 kg drum

Colour
RAL 7012
RAL 7032
RAL 7035
RAL 9011

Storage, transportation & storage life
In its original, unopened packaging and unmixed, the product has a storage life of at least 12 months if kept cool, dry and protected from frost. Direct sunlight on the containers should be avoided, including on site. Once opened, the product only has a limited shelf life.

Information on safety and risks
Please refer to the safety data sheet for up-to-date information. Note the information about personal protection.
GIS code: RMA 10

Disposal
The cured material can be disposed of as construction waste. The containers and residual material must be disposed of separately as hazardous waste.

Manufacturer/Production site
SOPREMA SAS
14, rue de Saint-Nazaire
67025 Strasbourg

Information
The information in this data sheet applies to the relevant product supplied by Soprema France. Please note that the details in other countries may differ from this.
The above information, especially as regards the guidelines for application and use of our products, is based on our knowledge and experience under normal circumstances. Application advice is provided to the best of our knowledge. However, the wide variety of requirements on site under the most diverse working conditions mean that it is necessary for the applicator to test the product for its suitability in any given case. We reserve the right to make changes to reflect advances in technology or improvements to our products.

ALSAN FLASHING QUADRO Waterproofing Resin

Product description:
ALSAN FLASHING QUADRO is a one-component polyurethane resin for application to details, interfaces and upstands in compliance with the highest stress category of ETAG 005.

Area of application
ALSAN FLASHING QUADRO is a waterproofing resin used for the flameless coating of details, interfaces and upstands on heat-sensitive substrates between horizontal floor areas and vertical surfaces on roofs and buildings.

Properties
- ETAG 005
- Service life: W3; imposed load: P1 - P4
- Climate zones: M, S; roof slope: S1 - S4
- Surface temperature: TL4/TH4
- One-component
- Easy to apply
- Contains solvent
- Can be used on wood, many metals, uPVC and mineral substrates without primer
- ALSAN 103 must be used on FPO/TPO

Application conditions
Substrate or ambient temperature:
5 °C min. to 35 °C max.
Moisture of mineral substrates: 5 % w/w max.
Moisture of wood: 16 % v/v
Atmospheric moisture: 80 % max.
The substrate temperature must be at least 3 °C above the dew point during application and curing.

Application
Preparation of the substrate: The substrate must be prepared to ensure that it is free from loose and adhesion-reducing substances.[1]
Mixing: Stir the resin thoroughly before application.
Application: ALSAN FLASHING QUADRO is applied with a suitable roller or brush. As a rough guide, approx. 2/3 of the resin should be applied wet in wet underneath the fleece and 1/3 above the fleece. Fleece overlaps must be at least 5 cm wide. Resin must also be applied between the layers of fleece.
System:
Systems compliant with ETAG 005:
System 1: with ALSAN polyester fleece with properties W3, P4, TH4, TL4:
Apply 3.0 kg/m² ALSAN FLASHING QUADRO.
System 2: With ALSAN glass fibre mesh with properties W3, P4, TH4, TL4:
Apply 2.0 kg/m² ALSAN FLASHING QUADRO.
(System 2 not applicable in germany)
Cleaning: If work is interrupted or when it is completed, clean the tools thoroughly with ALSAN System Cleaning Agent within the pot life of the product.

Consumption
Consumption is dependent on the system that has been selected.

Reaction time at 23 °C
Rainproof: approx. 4 hours
Walkable: approx. 6 hours
Maximum overlay time is 72 hours, after which the surface must be prepared with ALSAN System Cleaning Agent.

Technical data
Density at 23 °C: 1.19 g/cm³
Viscosity at 23 °C: 7500 mPas
Solids content: 85 %
Shore A hardness: 42
Water vapour permeability μ: 8022
Sd (3.0 kg/m²): 19.3 m
Sd (2.0 kg/m²): 12.8 m

System accessories
ALSAN Fleece

[1] Please refer to our “Information sheet 101 - Substrate preparation".

SOPREMA SAS
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Revised April 2019. Subject to change.

ALSAN FLASHING QUADRO Waterproofing Resin

Pack size
5 kg container
5 kg aluminium bag in plastic tub
2 x 1.5 kg aluminium bag in plastic tub

Colour
RAL 7040
RAL 7012

Storage, transportation & storage life
In its original, unopened packaging and unmixed, the product has a storage life of at least 12 months if kept cool, dry and protected from frost. Direct sunlight on the containers should be avoided, including on site. Once opened, the product only has a limited shelf life.

Information on safety and risks
Please refer to the safety data sheet for up-to-date information.
Note the information about personal protection.
GIS code: PU 50

Disposal
The cured material can be disposed of as construction waste. The containers and residual material must be disposed of separately as hazardous waste.

Manufacturer/Production site
SOPREMA SAS
14, rue de Saint-Nazaire
67025 Strasbourg

Information
The information in this data sheet applies to the relevant product supplied by Soprema France. Please note that the details in other countries may differ from this.
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ALSAN FLASHING Waterproofing Resin

Product description:
ALSAN FLASHING is a one-component, UV-resistant and alkali-resistant bitumen-polyurethane resin used to produce permanently flexible interfaces, upstands and borders.

Area of application
ALSAN FLASHING is used to produce permanently flexible, flameless interfaces, upstands and borders on heat-sensitive substrates, such as wood and uPVC. Furthermore, ALSAN FLASHING can also be used on metals, bituminous and mineral substrates.

Properties
- Highly flexible interfaces, upstands and borders can be produced without a flame and without heat
- General building authority test certificate obtained as waterproofing
- ETAG 005 approved
- Compliant with DIN 18195 and DIN 18531

Application conditions
Substrate or ambient temperature:
5 °C min. to 35 °C max.
Moisture of mineral substrates: 5 % w/w max.
Moisture of wood: 16 % v/v
Atmospheric humidity: 80 % max.
The substrate temperature must be at least 3 °C above the dew point during application and curing.

Application
Preparation of the substrate: The substrate must always be prepared prior to application of ALSAN Flashing to ensure that the surface is sound, dry and free from adhesion-reducing residue.[1]
Mixing: Stir the resin thoroughly before application.
Application: ALSAN FLASHING is applied with a suitable roller or brush. Apply the first layer. Embed the fleece and cover with a thin layer of resin. The second layer is applied once the first layer has dried out fully (touch test). Fleece overlaps must be at least 5 cm wide. Resin must also be applied between the layers of fleece.

[1] Please refer to our “Information sheet 101 - Substrate preparation".

Cleaning: If work is interrupted or when it is completed, clean the tools thoroughly with ALSAN System Cleaning Agent within the pot life of the product.

Consumption
1st layer: approx. 1.5 kg/m²
2nd layer: approx. 1 kg/m²
3rd layer: approx.0.3 kg/m²
(optional, only if sanded)

Reaction time at 23 °C
Rainproof: 1 hour
Loadable: 24 hours
Maximum overlay time: 72 hours, after which the surface must be prepared with ALSAN System Cleaning Agent.

Technical data
Density (liquid) at 23 °C: 1.05 g/cm³
Density (dry) at 23 °C: 1.1 g/cm³
Viscosity at 23 °C: 20000 mPas

System accessories
ALSAN Fleece

Pack size
2.5 kg drum
5 kg drum
15 kg drum

Colour
Black

Storage, transportation & storage life
In its original, unopened packaging and unmixed, the product has a storage life of at least 12 months if kept cool, dry and protected from frost. Direct sunlight on the containers should be avoided, including on site. Once opened, the product only has a limited shelf life and may gel prematurely.

SOPREMA SAS
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ALSAN FLASHING Waterproofing Resin

The product must not be applied once it has started to gel.

Information on safety and risks
Please refer to the safety data sheet for up-to-date information.
Note the information about personal protection.
GIS code: PU 60

Disposal
The cured material can be disposed of as construction waste. The containers and residual material must be disposed of separately as hazardous waste.

Manufacturer/Production site
SOPREMA SAS
14, rue de Saint-Nazaire
67025 Strasbourg

Information
The information in this data sheet applies to the relevant product supplied by Soprema France. Please note that the details in other countries may differ from this.
The above information, especially as regards the guidelines for application and use of our products, is based on our knowledge and experience under normal circumstances. Application advice is provided to the best of our knowledge. However, the wide variety of requirements on site under the most diverse working conditions mean that it is necessary for the applicator to test the product for its suitability in any given case. We reserve the right to make changes to reflect advances in technology or improvements to our products.

ALSAN FLASHING JARDIN Waterproofing Resin

Product description:
ALSAN FLASHING JARDIN is a one-component, UV-resistant, alkali-resistant and root-resistant bitumen-polyurethane resin used to produce permanently flexible interfaces, upstands and borders.

Area of application
ALSAN FLASHING JARDIN is used to produce root-resistant and rhizome-resistant, permanently flexible interfaces, upstands and borders on heat-sensitive substrates, such as wood and PVC. Furthermore, ALSAN FLASHING JARDIN can also be used on metals, bituminous and mineral substrates.

Properties
- Highly flexible interfaces, upstands and borders can be produced without a flame and without heat
- Root and rhizome resistance tested according to FLL
- General building authority test certificate obtained as waterproofing
- ETAG 005 approved
- Compliant with DIN 18195 and DIN 18531

Application conditions
Substrate or ambient temperature:
5 °C min. to 35 °C max.
Moisture of mineral substrates: 5 % w/w max.
Moisture of wood: 16 % v/v
Atmospheric humidity: 80 % max.
The substrate temperature must be at least 3 °C above the dew point during application and curing.

Application
Preparation of the substrate: The substrate must always be pretreated to ensure that the surface is sound, dry and free from adhesion-reducing residue before the primer is applied.[1]
Mixing: Stir the resin thoroughly before application.
Application: ALSAN FLASHING JARDIN is applied with a suitable roller or brush. Apply the first layer. Embed the fleece and cover with a thin layer of resin. The second layer is applied once the first layer has dried out fully (touch test). Fleece overlaps must be at least 5 cm wide. Resin must also be applied between the layers of fleece.
Cleaning: If work is interrupted or when it is completed, clean the tools thoroughly with ALSAN System Cleaning Agent within the pot life of the product.

Consumption
1st layer: approx. 1.5 kg/m²
2nd layer: approx. 1 kg/m²
3rd layer: approx. 0.3 kg/m²
(optional, only if sanded)

Reaction time at 23 °C
Rainproof: 1 hour
Loadable: 24 hours
Maximum overlay time: 72 hours, after which the surface must be prepared with ALSAN System Cleaning Agent.

Technical data
Density (liquid) at 23 °C: 1.05 g/cm³
Density (dry) at 23 °C: 1.1 g/cm³
Viscosity at 23 °C: 20000 mPas

System accessories
ALSAN Fleece

Pack size
2.5 kg drum
5 kg drum
15 kg drum

Colour
Black

[1] Please refer to our “Information sheet 101 - Substrate preparation".

SOPREMA SAS
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Revised March 2017. Subject to change.

ALSAN FLASHING JARDIN Waterproofing Resin

Storage, transportation & storage life
In its original, unopened packaging and unmixed, the product has a storage life of at least 12 months if kept cool, dry and protected from frost. Direct sunlight on the containers should be avoided, including on site.
Once opened, the containers only have a limited shelf life and may gel prematurely. The product must not be applied once it has started to gel.

Information on safety and risks
Please refer to the safety data sheet for up-to-date information.
Note the information about personal protection.
GIS code: PU 60

Disposal
The cured material can be disposed of as construction waste. The containers and residual material must be disposed of separately as hazardous waste.

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05/2019

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