

Application Guide Book on:

Constructive Waterproofing & Restoration Works





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The reconstruction, renovation and modernization of old buildings has gained more importance over the last years. The most important aspect for a permanent preservation of a building is the protection against rising dampness. SCHOMBURG has many years of experience and offers a wide range of suitable products.

This brochure is a practical aid to help and guide you on reliable solutions. Please find further information about SCHOMBURG and our product systems on our website www.schomburg.com.

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Protecting and maintaining values

Planning and implementation of waterproofing measures

Protecting a construction project from penetrating moisture, providing a pleasant living ambience for interior rooms and giving the building eternal youth: confronted with these requirements means making projects real with knowledge and precision, to the satisfaction of the client.

Living and working in a well tempered, hygienic and above all healthy environment is not a matter of course. In order to guarantee to maintain the value of a building for the duration, demands a thoroughly planned waterproofing solution. However, each building is continuously exposed to external environmental conditions and must be adjusted to match the corresponding individual surrounding influences. The waterproofing materials and system components to be used must be compatible with one another and matched together.

SCHOMBURG supplies the complete package from substrate preparation to waterproofing of biogas plants and sewerage works

for every requirement imaginable. Building components situated within the ground especially require a high quality and professional implementation of waterproofing measures. Subsequent improvements or even rebuilding are time consuming as well as bound with financial implications because once the building trench has been back-filled, the exterior is difficult to reach. For this reason SCHOMBURG offers optimum solutions for below grade waterproofing externally for a water impermeable basement.

The choice of appropriate waterproofing components suited for the masonry work in basements depends on many different factors. For one, what the basement will be used for, for another, the different types of so called exposure classes. This means the demands placed on a building by moisture exposure from the outside. Ground water under pressure requires a different waterproofing application than normal ground moisture.





For optimum results

Substrate preparation

For a waterproof membrane to function permanently, a thorough and careful preparation of the surface to be treated is required. Then the finished waterproof membrane is only as good as the substrate permits.

The waterproofing material must be in harmony with the substrate and needs an optimum bond for an assured and long lasting waterproof function.

The optimum substrate preparation must comply with the waterproofing situation on hand. Therefore different waterproofing measures must be carried out in biogas plants than those for coating a garage. Dependent on the topic, there are varied system solutions for each particular area of application.

Assessment of the construction

Before carrying out any waterproofing measures there must be a professional inspection of the substrate within the construction. With concrete substrates there are often bubbles formed in the wet coating. This is due to the scarcely visible air spaces on the concrete surface, mostly covered by a cement film. The trapped air in the pores expands when the sun shines and continuously rushes out. This causes the fresh coating to be forced from the substrate. This is avoided by stripping off the cement film with the aid of a wire brush. With tenacious cement films it may be necessary to use sand blasting for a clean removal. The pores thus opened can then be filled up with a suitable mortar or after pre-coating with the appropriate SCHOMBURG waterproofing compound.

Through these working steps, the substrate is optimally treated so that once the mortar has dried successive waterproof membranes can be carried out and will be functional.



Substrate preparation with SCHOMBURG products

The substrate must be load bearing, fine pored and free from contamination and dust. Unevenness and ridges must be thoroughly eliminated. As already clarified in the assessment of the construction, open joints up to 5 mm and surface profiling or stone irregularity (e.g. mortar ridges within brickwork or dense concrete blocks) must be evened out by applying ASOCRET-M30 or SOLOCRET-1.5 mortars. Voids or hollows greater than 5 mm which have not been closed off such as for example mortar pockets or defects are also to be repaired with mortar.

Furthermore the surface should be free from gaping cracks and adhesion inhibiting materials such as e.g. oil, paint, laitance and loose components. Thoroughly strip off laitance layers mechanically from the base slab back to a sound core, in order to ensure a high bond strength. As a vulnerable and sensitive area, the transition between the base slab and wall is to be pre-treated with a slurry coat of AQUAFIN®-1K. Then a covered fillet is installed whilst the slurry coat is still wet, composed of ASOCRET-M30. Alternatively the covered fillet area can be prepared with ASO®-Joint-Tape-2000-S and the application of AQUAFIN®-RS300. Once fully cured also apply a slurry coat of AQUAFIN®-RS300 to the covered fillet area including 15 cm of the front edge.

The substrate should be wetted so that it is matt damp when the waterproofing coat is applied. Very absorbant substrates such as e.g. aerated concrete must be primed with ASO®-Unigrund-GE/-K to improve the adhesion. Use ASODUR®-GBM (including broadcasting with quartz sand) as a pore free primer on metal substrates. When using SOLOPLAN®-30-PLUS for levelling the surface at greater thicknesses (up to 30 mm), apply in a similar manner. If there is the threat of moisture penetration from the rear, use ASODUR®-SG2 instead.

Optimum substrates consist of close textured concrete, cement-based screeds, renders P II and P III and fully pointed masonry work. Shuttered concrete planks, dense concrete blocks and uneven masonry must be levelled with a cement-based mortar.





Correct and permanent External basement waterproofing

Dry and absolutely watertight basements are not a matter of course. Optimum basement waterproofing belongs to the most important requirements for a building which is to remain untroubled by moisture damage over the longer term. As moisture can penetrate basements from different sides, it requires different waterproof systems in order to guarantee comprehensive protection and dry and mould free living.

COMPONENTS

AQUAFIN®-1K

ASO®-Joint-Tape-2000-S

ADF®-Pipe-Gasket

AQUAFIN®-RS300

COMBIFLEX®-EL

ASO®-Systemvlies-02

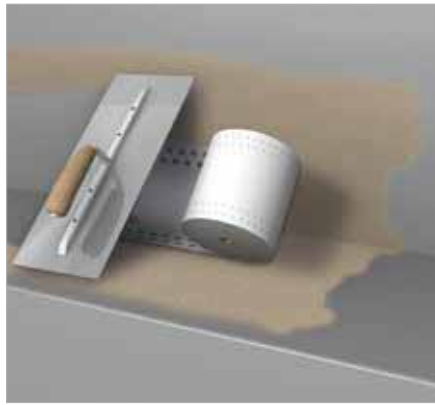
COMBIDIC®-1K

**COMBIDIC®-2K-CLASSIC /
COMBIDIC®-2K-PREMIUM**



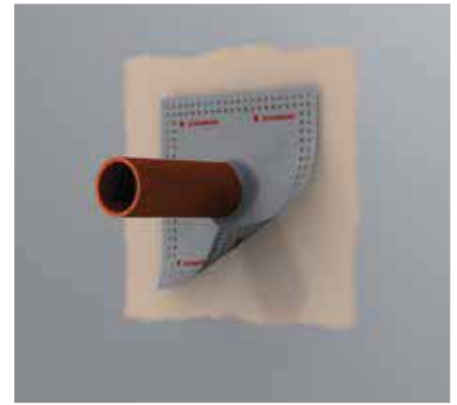
1 Evening out the substrate (if required)

Level the surface and close open joints (up to 5 mm) with AQUAFIN®-1K in one coat by trowel or with suitable spray equipment.



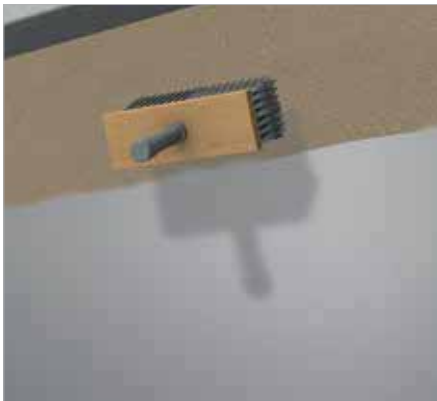
2 Waterproofing wall-floor junctions

Apply a minimum of two coats of AQUAFIN®-RS300 over the entire overhang of the foundation slab and the front edge. At the wall/floor junction additionally bond ASO®-Joint-Tape-2000-S into the first coat without voids or folds.



3 Waterproofing pipe penetrations

Apply AQUAFIN®-RS300 with a 4 mm notched trowel, bond ADF®-pipe gasket without folds and then completely overcoat.



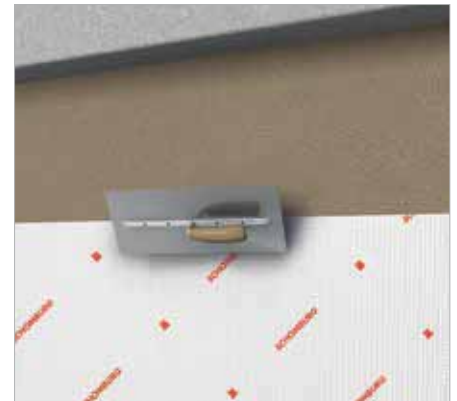
4 Waterproofing the foundation base transition

Apply a minimum of 2 coats of AQUAFIN®-RS300 with a brush, steel float or suitable spray equipment. Install up to at least 30 cm above and at least 20 cm below the ground level.



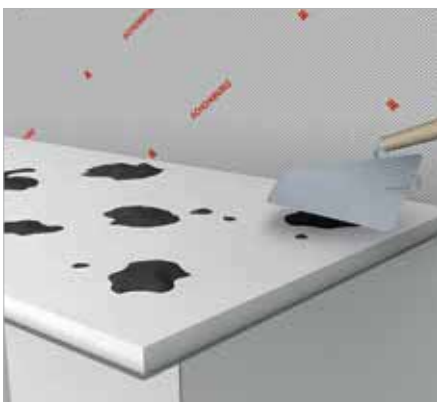
5 Polymer modified bitumen-waterproofing

Apply COMBIFLEX®-EL by trowel at a thickness appropriate for the type of moisture exposure. Apply the high build bitumen coating with a minimum 10 cm overlap over the foundation base waterproofing (picture 4).



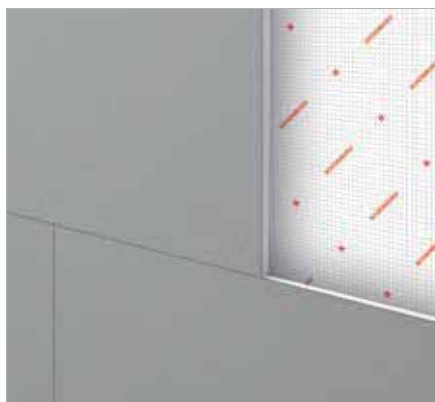
6 Protective and slip fleece

Recommended application for masonry work, mandatory with concrete structures: Cut the ASO®-Systemvlies-02 to the correct length and bed into the fresh bitumen coating without folds or overlapping, then smooth flat.



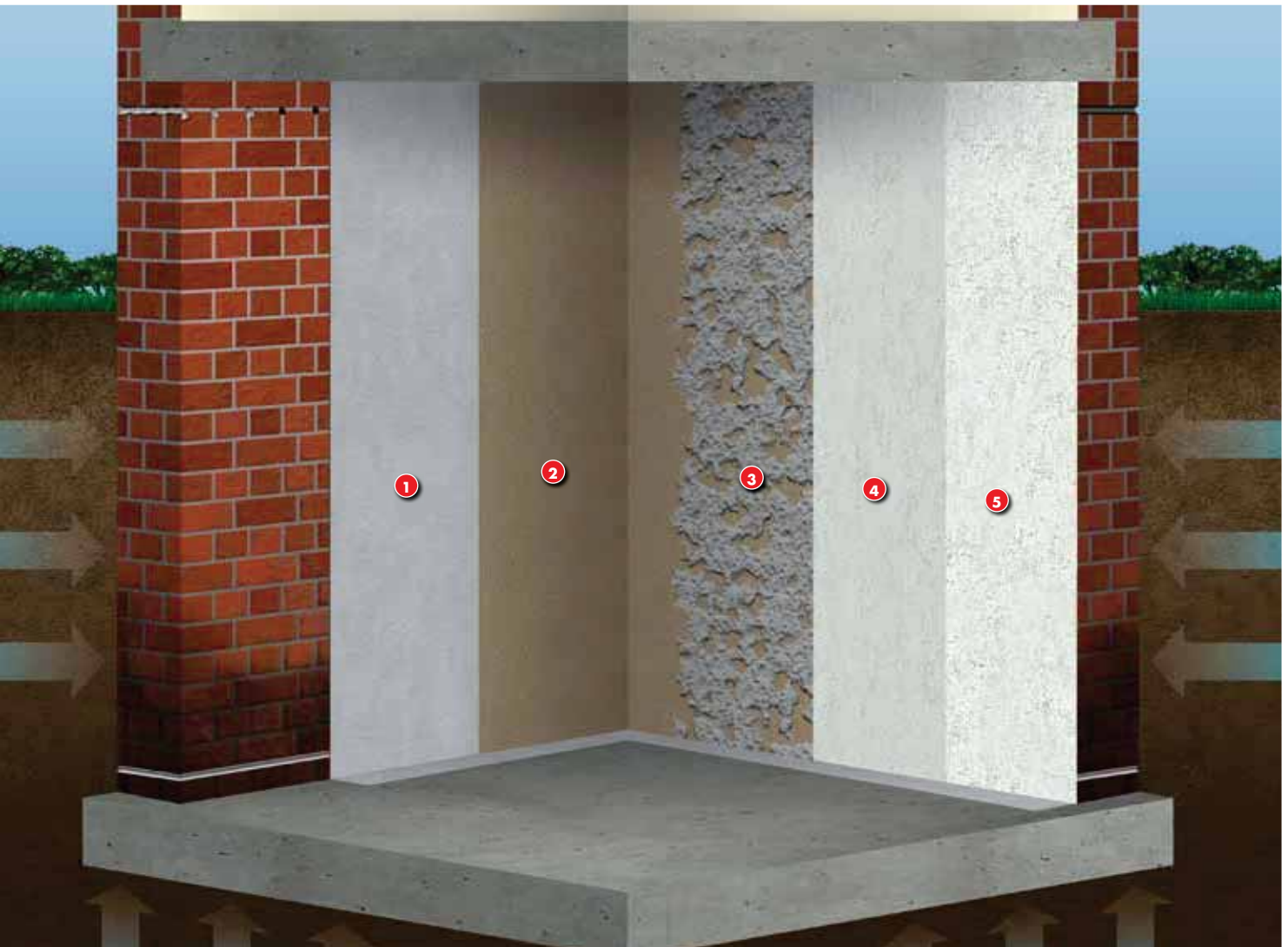
7a Protection and drainage boards

Once the waterproofing layer has fully dried, apply the high build bitumen coating COMBIDIC®-1K as dabs to the non-laminated side of a suitable protection and drainage board and press on to the waterproofed substrate.



7b Perimeter insulation

Position the insulation in accordance with the manufacturer's instructions and bond in a staggered pattern with COMBIDIC®-2K-CLASSIC or COMBIDIC®-2K-PREMIUM using a full bed.



Retrospective

Internal basement waterproofing

The protection of the building fabric from continued destruction from water, is the main topic of construction restoration.

If buildings constructed in the ground are not protected from moisture, they will fall into ruins. A damp wall is also a thermal bridge, which can attract further damage. In the face of rising energy prices, a dry wall contributes to a reduction in energy costs. Other aspects for restoration are, of course, better living comfort and increased value of the property. Retrospective internal waterproofing in basements, is the most efficient means to satisfy these requirements.

COMPONENTS

AQUAFIN®-1K

AQUAFIN®-RS300

THERMOPAL®-SP

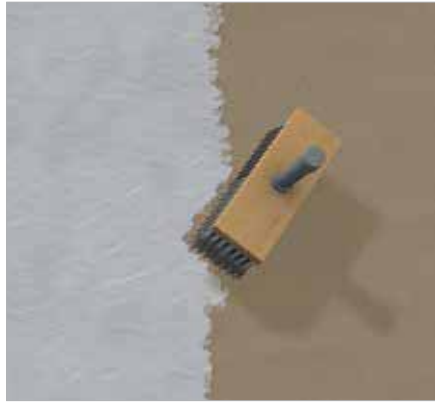
THERMOPAL®-SR24 or -ULTRA

THERMOPAL®-FS33



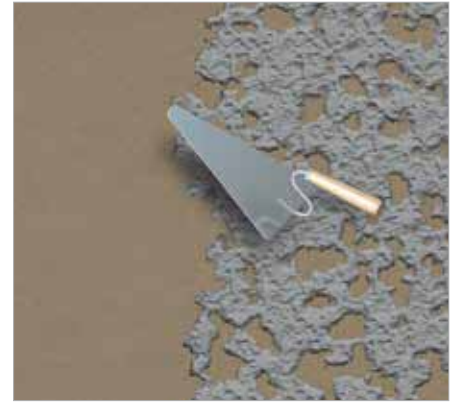
1 Waterproofing the walls

Waterproof the exposed, load-bearing wall area with AQUAFIN®-1K. Once hardened, apply a second or third coat if necessary of AQUAFIN®-1K.



2 Waterproofing the walls (risk of cracking)

On substrates, where there is a risk of cracking, waterproofing is carried out to the exposed, load bearing wall area initially with AQUAFIN®-1K. Once hardened, apply two coats of AQUAFIN®-RS300 by brush or trowel.



3 Splatterdash coat

Apply a full coverage splatterdash coat of THERMOPAL®-SP to the waterproofed substrate, to improve the bond of the subsequently applied restoration plaster.



4 Application of the restoration plaster

Apply a single layer of THERMOPAL®-SR24 or THERMOPAL®-ULTRA up to max. 3 cm. After allowing to stand for an adequate amount of time, the surface can be grid floated or rubbed down.



5 Application of the fine plaster finish

Apply the fine grain mineral-based compound THERMOPAL®-FS33 by trowel to the required thickness up to max. 3 mm. Once the surface has dried, rub down with a foam rubber board, felt board or sponge board.

Protection against capillary rising damp

Sequentially applied horizontal barrier with liquid injection material

In the case of damage from capillary rising dampness there is the possibility to install a sequentially horizontal damp proof barrier in the masonry work. Dependent on the thickness of the masonry and degree of moisture penetration the pressure injection method provides for this purpose. Here holes are drilled every 10-12.5 cm centres into the masonry. The bore holes are drilled level in the horizontal pointing or positioned at a 45 degree angle. The depth of the bore hole should be approx. 5 cm less than the thickness of the masonry. The injection material is injected under pressure into the substrate using appropriate injection packers. In this way the injection material is pressed into the pores in the building material and forms a hydrophobic (water repellent)

level so that moisture can no longer be transported upwards by the capillaries. In case of a low degree of water penetration injection using pressureless techniques is possible. The material is tested and certified in accordance with the WTA data sheet ("Masonry injection against capillary moisture") to a saturation rate of 95%.

COMPONENTS

AQUAFIN®-1K

ASOCRET-BM

AQUAFIN®-F



1 Evening out the wall surface

In order to optimise the spread of the horizontal damp proof barrier, brush apply AQUAFIN®-1K to a height of approx. 10 cm above the planned row of bore holes.



2 Filling voids

Fill voids and defects in the substrate with the bore hole mortar ASOCRET-BM.



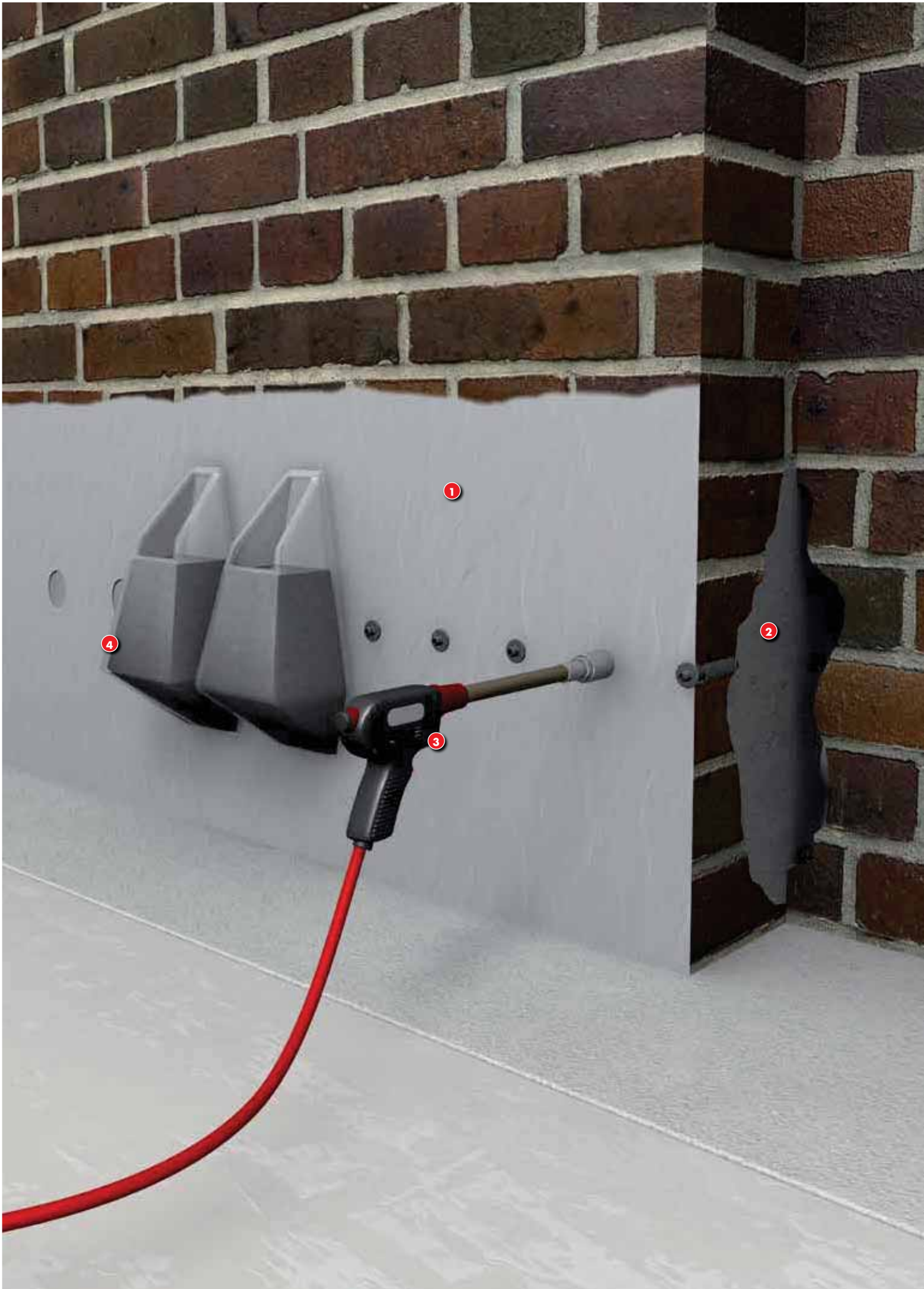
3 Producing the horizontal damp proof barrier

After drilling the bore holes (bore hole distance between 10-12.5 cm) inject AQUAFIN®-F under low pressure (<10 bar) via injection packers into the substrate. Maintain the injection pressure until the neighbouring areas to the packers show signs of glistening. After approx. 24 hours remove the packers and close off the holes with ASOCRET-BM. With very porous masonry work it can also be carried out from one side.



4 Alternative: Pressureless injection

With pressureless techniques connect the appropriate holding tank in the bore holes and fill with injection material. Dispersion into the substrate happens exclusively by gravity and the absorption of the substrate. Continue with the filling process until the injection material is no longer absorbed. Closing off the bore holes is carried out, as in the pressurised techniques, with the bore hole mortar ASOCRET-BM.



Protection against capillary rising damp

Sequentially applied horizontal barrier with paste injection material

AQUAFIN®-i380 is an active solution for retrospective horizontal barriers. The silane based injection cream is worked either without pressure or under low pressure and acts hydrophobically against rising damp in masonry work. The material is tested and certified in accordance with the WTA data sheet ("Masonry injection against capillary moisture") to a saturation rate of 95%.

Classic, aqueous horizontal barriers can be used without pressure up to a saturation level of < 60%. Where the saturation level is > 60%, the use of low pressure methods is recommended. One of the many advantages of AQUAFIN®-i380: this injection cream can also be used using pressure free techniques up to 95% saturation level!

The active ingredient contained is highly effective and finely structured due to its special formula. It does not react with the water, but exclusively with the substrate. AQUAFIN®-i380 is hydrophilic and therefore disperses especially quickly in the water present in the masonry work. Over time, this leads to 100% saturation of the pores. Once reacted with the substrate, the capillary walls are water repellent. Capillary water transportation is prevented and the substrate dries out.

Using the practical 550 ml sausage with an injection gun. Slowly pressing and extruding with the injection tube supplied, achieves completely filled bore holes. Due to its creamy consistency, it is possible to use

in horizontal holes and with inhomogenous masonry work. The risk of uncontrolled flow such as with aqueous horizontal barriers, does not appear.

COMPONENTS

AQUAFIN®-i380

ASOCRET-BM



1 Producing the bore holes

Produce the bore holes at a distance of approx. 12.5 cm apart with an electropneumatic drill, that operates as vibration free as possible.



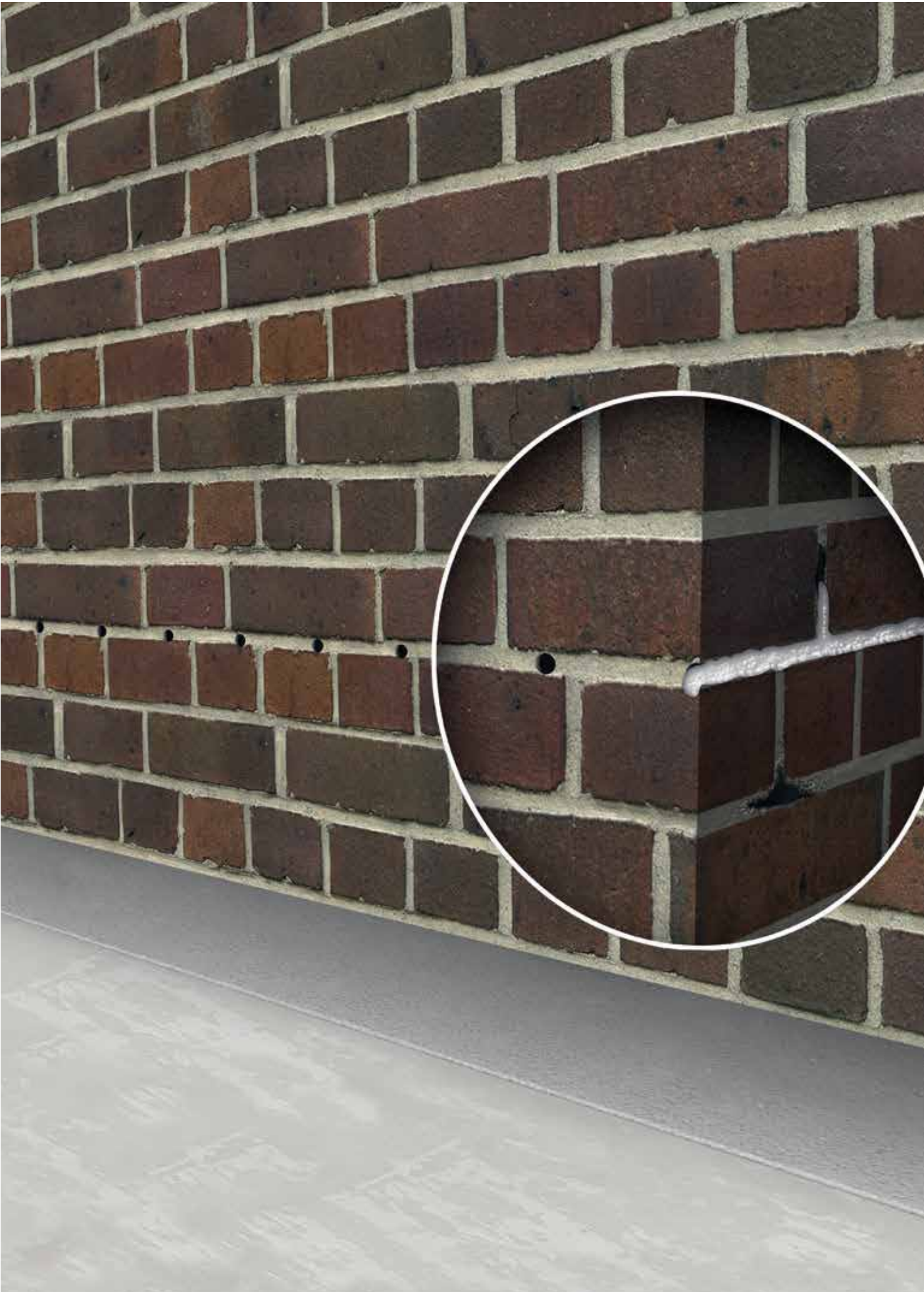
2 Cleaning the bore holes

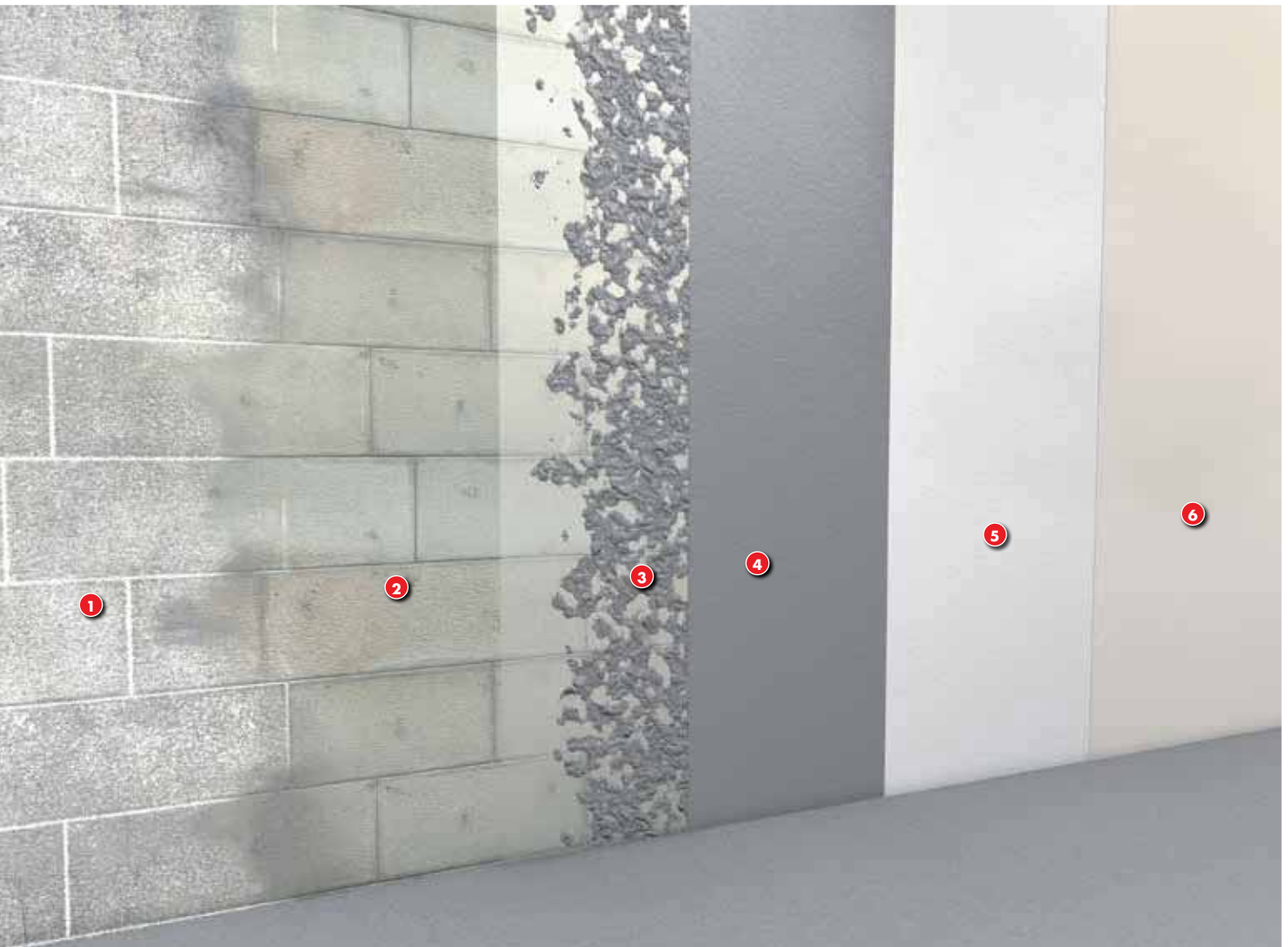
Before injecting, carefully remove the drilling dust, in order to ensure the highest possible uptake of the active ingredient into the masonry work.



3 Producing the horizontal damp proof barrier

Once the bore holes have been cleaned, introduce the AQUAFIN®-i380 with an injection gun using non-pressure techniques. Extrude the material until the bore hole is completely full. Upon completion of the horizontal waterproofing, seal the drilled hole with the bore hole and void filler ASOCRET-BM.





Restoration with THERMOPAL®

Salt contaminated substrates

There is a high incidence of dampness and salt contamination within the substrates in old buildings. In order to restore these surfaces both professionally and for a long time then the salt contamination must be analysed exactly in order to be able to adopt the appropriate product system. The THERMOPAL® system developed for such occurrences is not only suitable for restoring such surfaces but also simultaneously facilitates the restoration of mould contaminated surfaces. An old building becomes a truly restored building project.

COMPONENTS

ESCO-FLUAT

THERMOPAL®-SP

THERMOPAL®-GP11

THERMOPAL®-SR24 or -ULTRA

THERMOPAL®-FS33



1 Salt contaminated surfaces

Salts located within masonry work function hygroscopically and migrate to the surface, as this evaporation zone has a low moisture content and good conditions for crystallisation exists. This leads to the destruction of the plaster/render surface.



2 Application of the salt converter

Brush apply ESCO-FLUAT once or twice to the exposed masonry work to saturation (dependent on the salt contamination and porosity of the substrate). The damaging salts are converted to sparingly soluble salts and cannot be carried forward into the new, freshly applied plaster.



3 Throwing the splatterdash coat

Apply THERMOPAL®-SP, up to a maximum thickness of 5 mm, to cover half the surface (approx. 50% surface coverage) in preparation for the render coat in accordance with the rules governing rendering techniques. Lightly pre-wet the substrate as necessary in order to guarantee a good bond.



4 Application of the backing coat plaster

Apply THERMOPAL®-GP11 in thicknesses from 10–30 mm (with thicker coats in more layers). Strike off each previous coat with a plasterer's darby. Immediately the plaster stiffens roughen up horizontally and allow to dry.



5 Application of the restoration plaster

Apply a single layer of THERMOPAL®-SR24 or THERMOPAL®-ULTRA up to a max. of 3 cm. After allowing to stand for an adequate amount of time, the surface can be grid floated or rubbed down. Rubbing too early encourages the binder to concentrate at the surface which can cause shrinkage cracks and impede the vapour permeability of the plaster layer.



6 Application of the fine plaster finish

Apply the fine grain mineral-based compound THERMOPAL®-FS33 by trowel to the required thickness up to a max. of 3 mm. Once the surface has dried rub down with a foam rubber board, felt board or sponge board.

Long lasting

Garage restoration

The frequent use of garage areas places high demands on the floor and wall materials installed. Then with each entry and exit of a vehicle, dirt and above all, rain water, is brought into the interior. In particular, moisture can penetrate into the floors via the walls and cause moisture damage.

In order to prevent this and similar damage, SCHOMBURG has developed an optimum application technique with complementary components. Damage, which already exists, can be repaired and the garage area optimally restored.

COMPONENTS

ASOCRET-M30

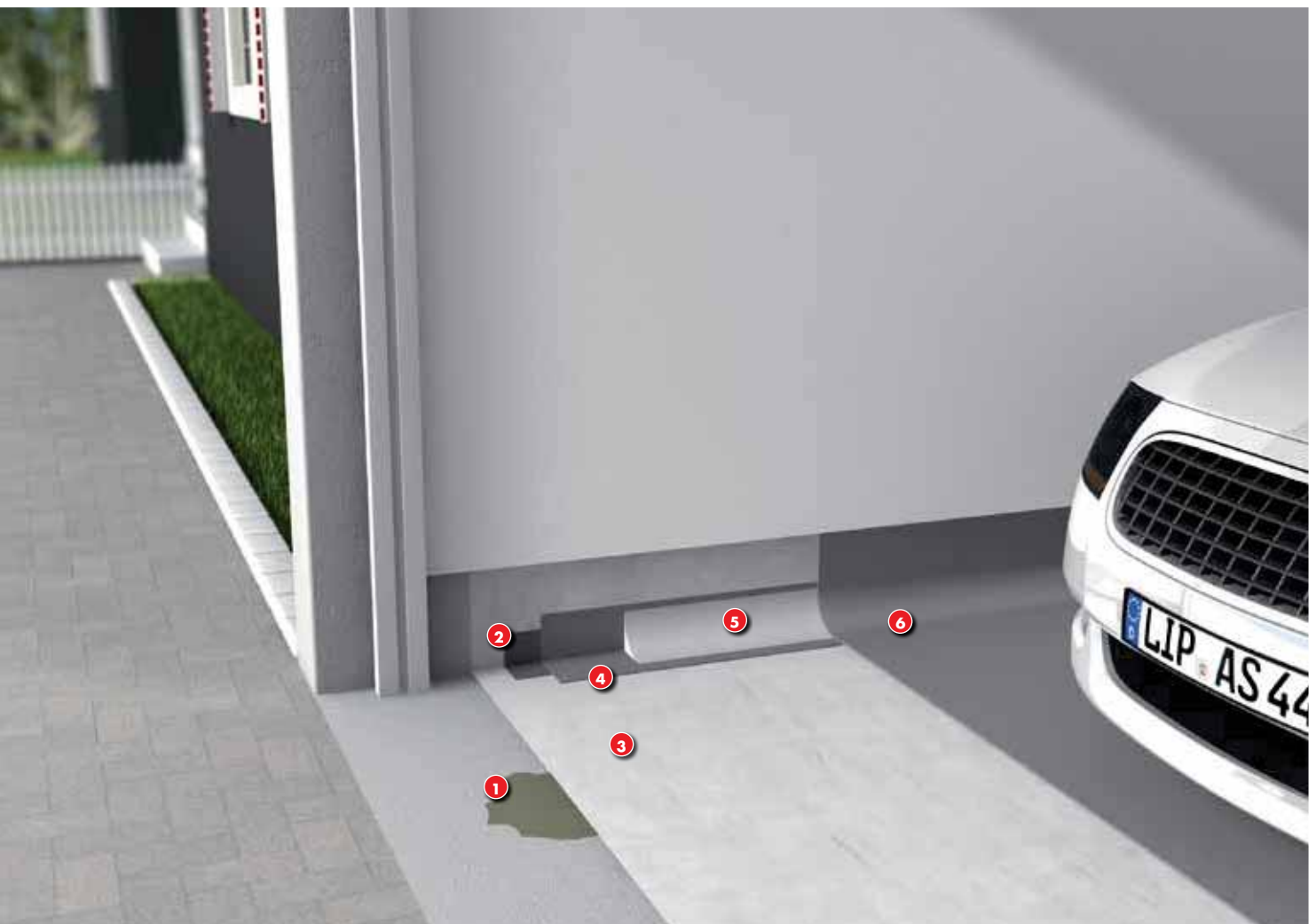
RD-SK50

SOLOPLAN®-30-PLUS

ASODUR®-GBM

ASODUR®-EMB

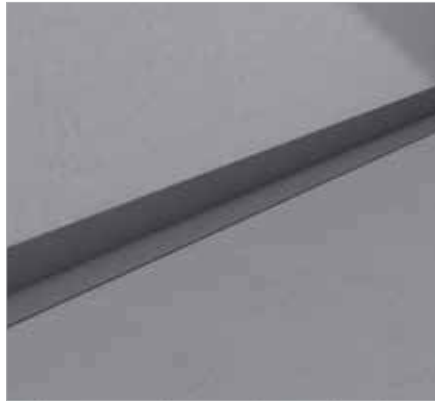
ASODUR®-B351





1 Levelling out voids

Close large voids with ASOCRET-M30 by trowel to thicknesses from 3 - 30 mm.



2 Edge insulation strips

At the wall/floor transition, place the RD-SK50 edge insulation strip. Bond to the substrate with the self-adhesive membrane. Once fixed, RD-SK50 presses itself against the wall so that stresses or sound bridges are prevented.



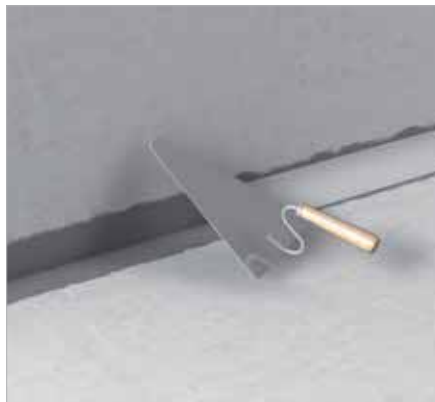
3 Evening out surfaces

Mix the self-levelling floor levelling compound SOLOPLAN®-30-PLUS with the prescribed water quantity and apply to the primed substrate up to max. 30 mm.



4 Priming the covered fillet

Cut the edge insulation strip RD-SK50 off at the surface transition. Prime the area where a covered fillet is to be constructed, with ASODUR®-GBM.



5 Producing the covered fillet

Onto the primer, ASODUR®-GBM, produce a covered fillet of side length min. 4 - 6 cm, with ASODUR®-EMB whilst the primer is still wet.



6 Sealer application

Evenly roller apply the sealer ASODUR®-B351 in a criss-cross manner, ensuring pores are filled in (two application steps).

Waterproofing water bearing cracks

Crack repair (wall surfaces)

When restoring and renovating buildings professional crack repair is essential. Cracks occur when stresses in the substrate are greater than the resistance of the individual building components. If water penetrates these cracks then the use of the building is seriously vulnerable. For this reason plugging the crack is indispensable in order to reinstate the resistance of the substrate. This is achieved not only by filling the individual

crack but also by injection with special injection resins which spread through the substrate and e.g. on contact with water form a viscoplastic foam. With this system cracks are not only temporarily but sustainably waterproofed.

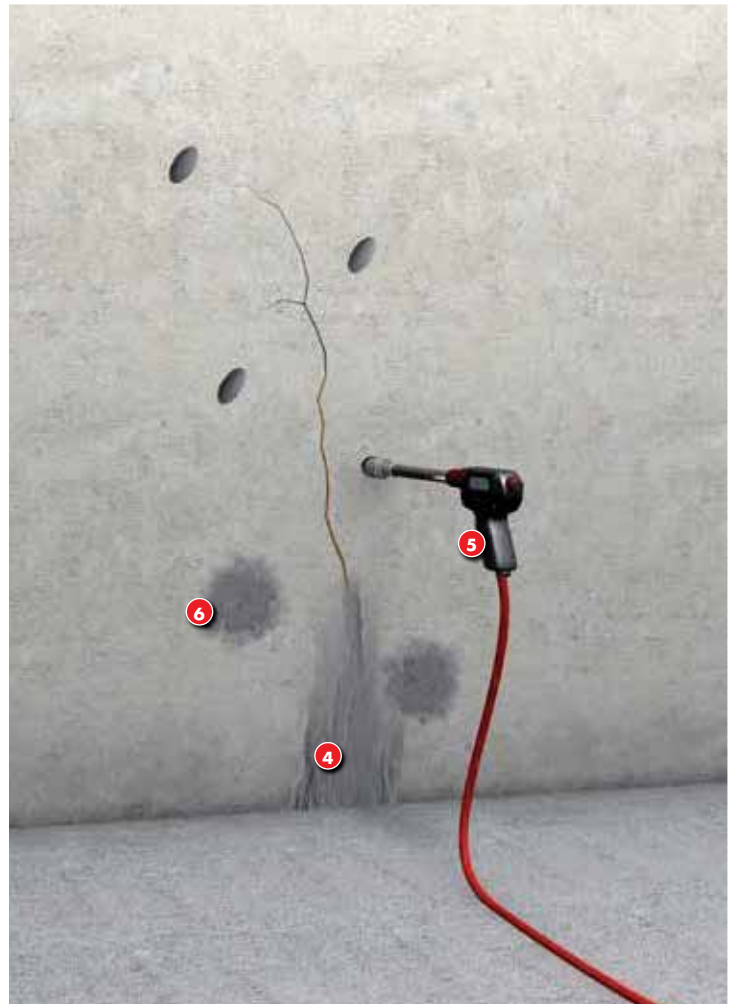
COMPONENTS

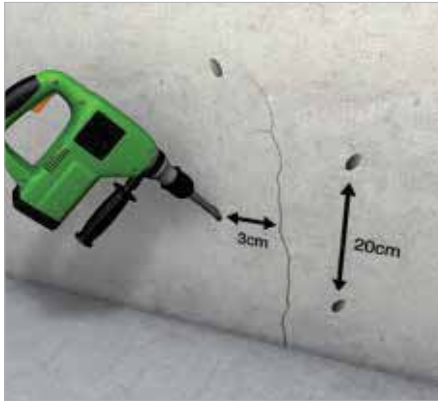
AQUAFIN®-P1

AQUAFIN®-P4

ASODUR®-EK98-Wall

ASOCRET-BIS-1/6





1 Hole drilling

Existing cracks are drilled at 20 cm intervals each offset at an angle of 45° to the crack.



2 Cleaning

Using oil free compressed air and compressor free the bore holes from any drilling dust.



3 Optional: Waterproofing water bearing cracks

Insert the appropriate injection packer into the bore hole. In the case of water bearing cracks firstly inject AQUAFIN®-P1. The material reacts with water to form a watertight, visco-plastic foam and stops water ingress. Once hardened excess foam is removed flush with the surface.



4 Plugging the crack

In the case of non water bearing cracks the crack is plugged with ASODUR®-EK98-wall. Once the plugging material has completely hardened then AQUAFIN®-P4 is injected.



5 Permanently waterproofing cracks

When using AQUAFIN®-P1, an additional injection of the elastic crack waterproofing material AQUAFIN®-P4 is necessary.



6 Closing off the bore holes

Once the injection resin has hardened, the plugging material can be removed as necessary for visual reasons. Close off the bore holes with ASOCRET-BIS-1/6.



Robust and adhesive seal

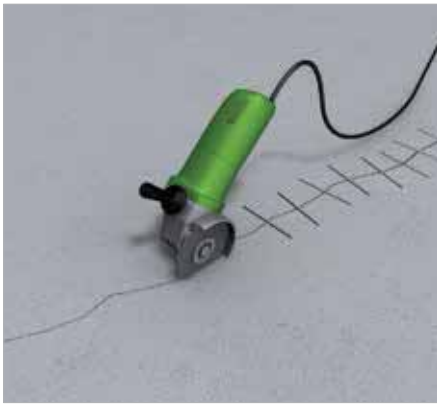
Crack repair (floor)

Cracks in concrete floors or screeds are as a rule subjected to changing mechanical loads. To adhesively seal the crack, epoxy resins are particularly suitable. ASODUR®-K900 is probably the most practical way to simply, quickly and cleanly close cracks in screeds and concrete. We supply the low viscosity epoxy resin based product in a practical squeeze bag - including gloves, screed clips and PE pipe. You have the possibility to mix a heavy duty pourable resin as a closed system by simply squeezing.

COMPONENTS

ASODUR®-K900

Quartz sand



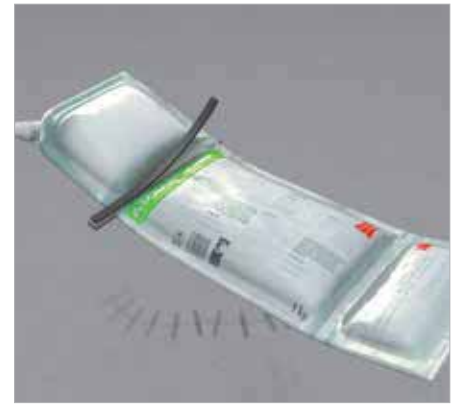
1 Opening the crack

Saw cut the crack or joint lengthways (to approx. half to two thirds to screed depth). At right angles to the crack and at 30 cm intervals cut in 10 cm long transverse slots.



2 Cleaning

Remove dust and contamination and thoroughly clean the cut area with an industrial vacuum or similar.



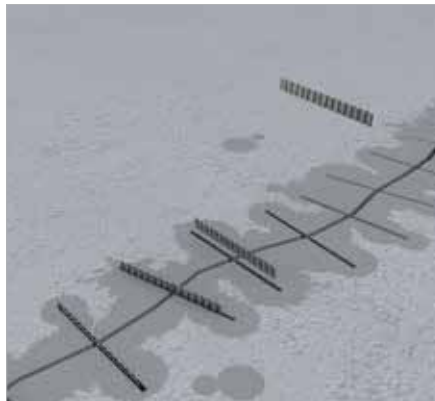
3 Mixing

Carefully open the third segment of the squeezy bag of ASODUR®-K900 and take out the gloves and screed clips. Now remove the black cord from the top of the squeezy bag and evenly squeeze the bag for at least 3 minutes. The bag will become warm during this process.



4 Grouting the cracks

Pour the mixed ASODUR®-K900 into the prepared cut and fill to half way. As necessary use the PE pipe supplied as an extension.



5 Place the screed clips

Now lay the screed clips provided into the slots.



6 Trowel the cracks

Close off the surface of the crack with a trowellable consistency mortar produced from ASODUR®-K900 and quartz sand.



7 Quartz sand

Evenly broadcast quartz sand (grain size 0.2 to 0.7 mm) into the fresh smoothing mortar.



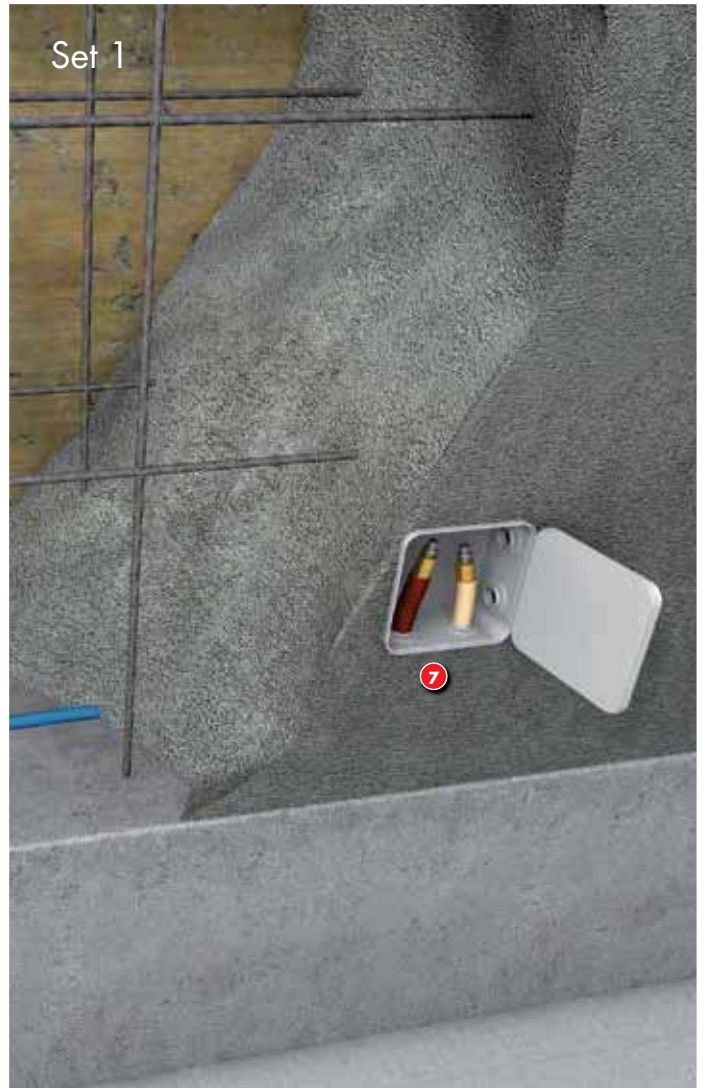
8 Sweeping off

Once cured remove loose sand by sweeping.

Set 2



Set 1



Waterproofing construction joints with injection tubes

White tub

A "white tub" refers to a concrete construction with increased resistance to water penetration. The building units are as a rule partly or completely in contact with the ground. The concrete adopts, without additional waterproofing measures, a load-bearing as well as waterproofing function. When producing the structure, construction joints exist between cast segments which must be waterproofed against ground water

and moisture through special measures. The pre-laying of PVC pressure grouting hose has proven to be an efficient system. Thus it is possible to quickly and simply waterproof the whole joint area and in potential defects spread throughout the concrete.

Note:

The components of AQUAFIN®-CJ-sets 1 and 2 can be found in the product overview on page 57.

COMPONENTS

AQUAFIN®-CJ1

AQUAFIN®-CJ-Set 1

AQUAFIN®-CJ-Set 2

AQUAFIN®-P1

AQUAFIN®-P4



1 Standard packer

Nail a standard packer to the inner side of the mould at the start and end points (max. 10 m), mount the pressure grouting hose and then fix with a hose clamp.



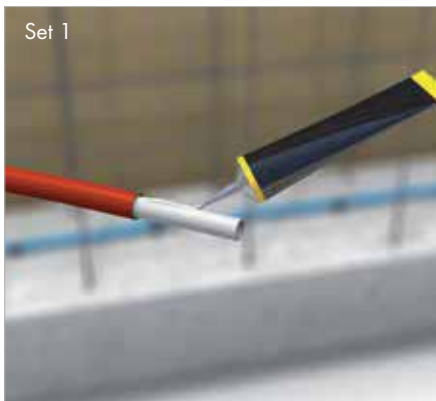
2 Fixing the pressure grouting hose

Carefully fix the AQUAFIN®-CJ1 pressure grouting hose to the packers using hose clamps.



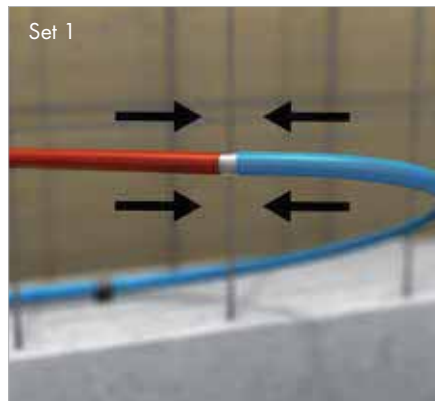
3 Laying the pressure grouting hose

Lay the perforated pressure grouting hose ensuring it will be covered by a minimum of 8 cm of concrete on the water-bearing side and fix to the concrete using plastic clips (6 pieces per m) in order to prevent slipping or floating.



4 Bonding the breather pipe

Liberal apply the enclosed PVC adhesive to the exposed connection opening on the breather pipe.



5 Connecting the pressure grouting hose

Immediately attach the AQUAFIN®-CJ1 pressure grouting hose to the thus prepared breather pipe - then wait for the drying time.



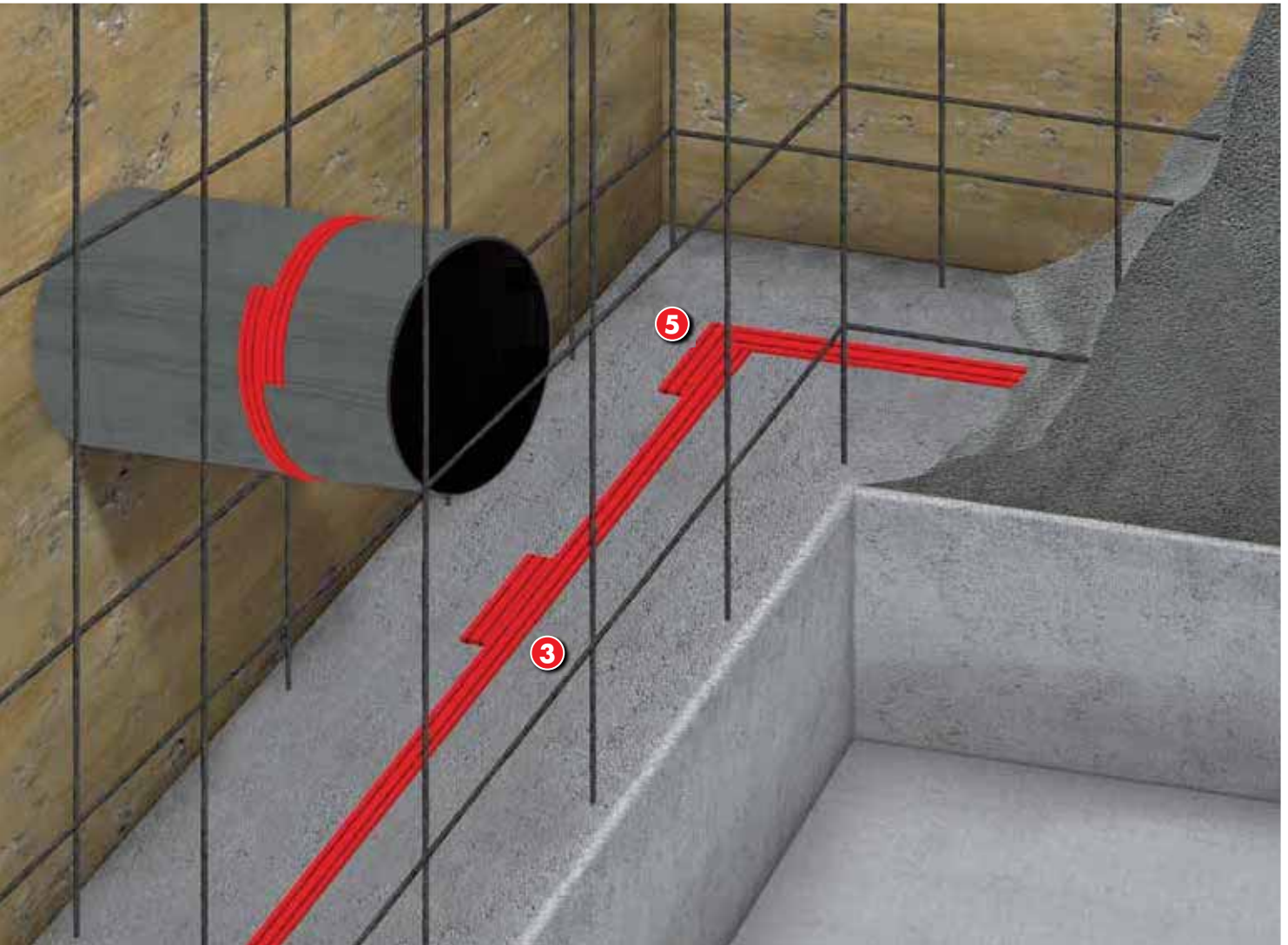
6 Completely bond the breather pipe

Pull approx. 6–8 cm of heat shrink sleeving over the connection between breather pipe and pressure grouting hose and heat up the connection using hot air until the heat shrink sleeve has pulled tightly over the connection. The breather pipe is not perforated and therefore guarantees the transportation of the injection material in the perforated injection hose.



7 Isolating cut pipe

Feed the ends of the vent pipes into a protective box and furnish with an injection nipple prior to injecting (e.g. with AQUAFIN®-P1 or AQUAFIN®-P4).



Waterproofing construction joints with elastomeric swellable water bars

White tub

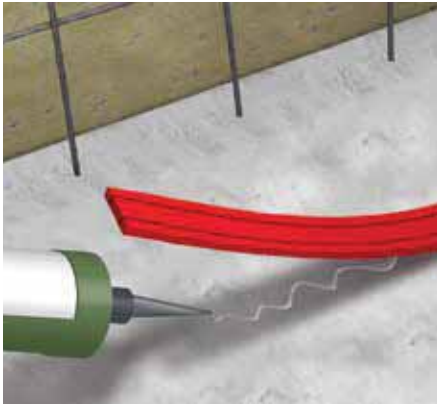
Another successful variant to waterproofing concrete construction joints, is the incorporation of so-called swellable rubber. Elastomer swellable water bars consist of special polymers as well as special fillers and also react on water contact with a strong and reliable swelling behaviour. Compared to bentonite swellable water bars, elastomer water bars have the advantage that they swell 'dimensionally stable' on water ingress (> 850%) and cannot therefore be flushed

out. Applications extend to waterproofing day joints in site poured concrete and element walls, which constantly or partially experience exposure to ground water, surface water and water accumulating on slopes. Its use is also possible in riparian areas.

COMPONENTS

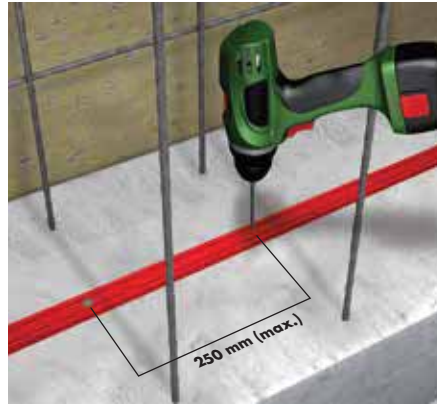
Assembly adhesive

AQUAFIN®-CJ6



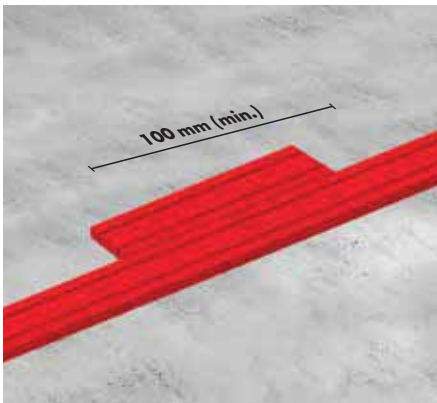
1 Bonding with a mounting adhesive

With a hand caulking gun, squeeze out the mounting adhesive onto the cleaned substrate and press the AQUAFIN®-CJ6 swellable water bar fully bedding, until the mounting adhesive oozes out the side.



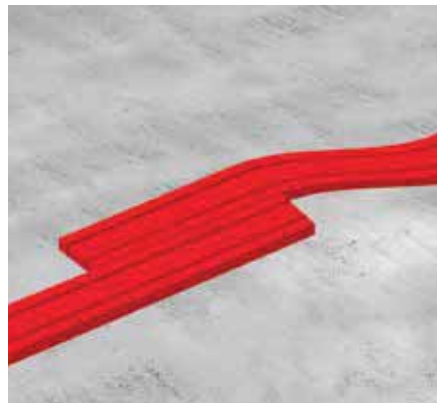
2 Mechanical fixing

Alternatively where there is at least 8 cm concrete cover from the water bearing side, AQUAFIN®-CJ6 can be fixed at 4 - 6 points by screw or nail. The swellable water bar must lie flush with the concrete substrate.



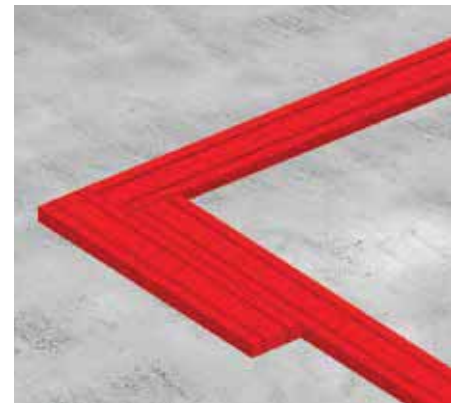
3 Butt joints

Waterstop tape joint connections can be carried out by butt jointing. With larger wall sections the butt joints are to be secured with a separate waterstop tape overlapped on each side by a minimum of 50 mm.



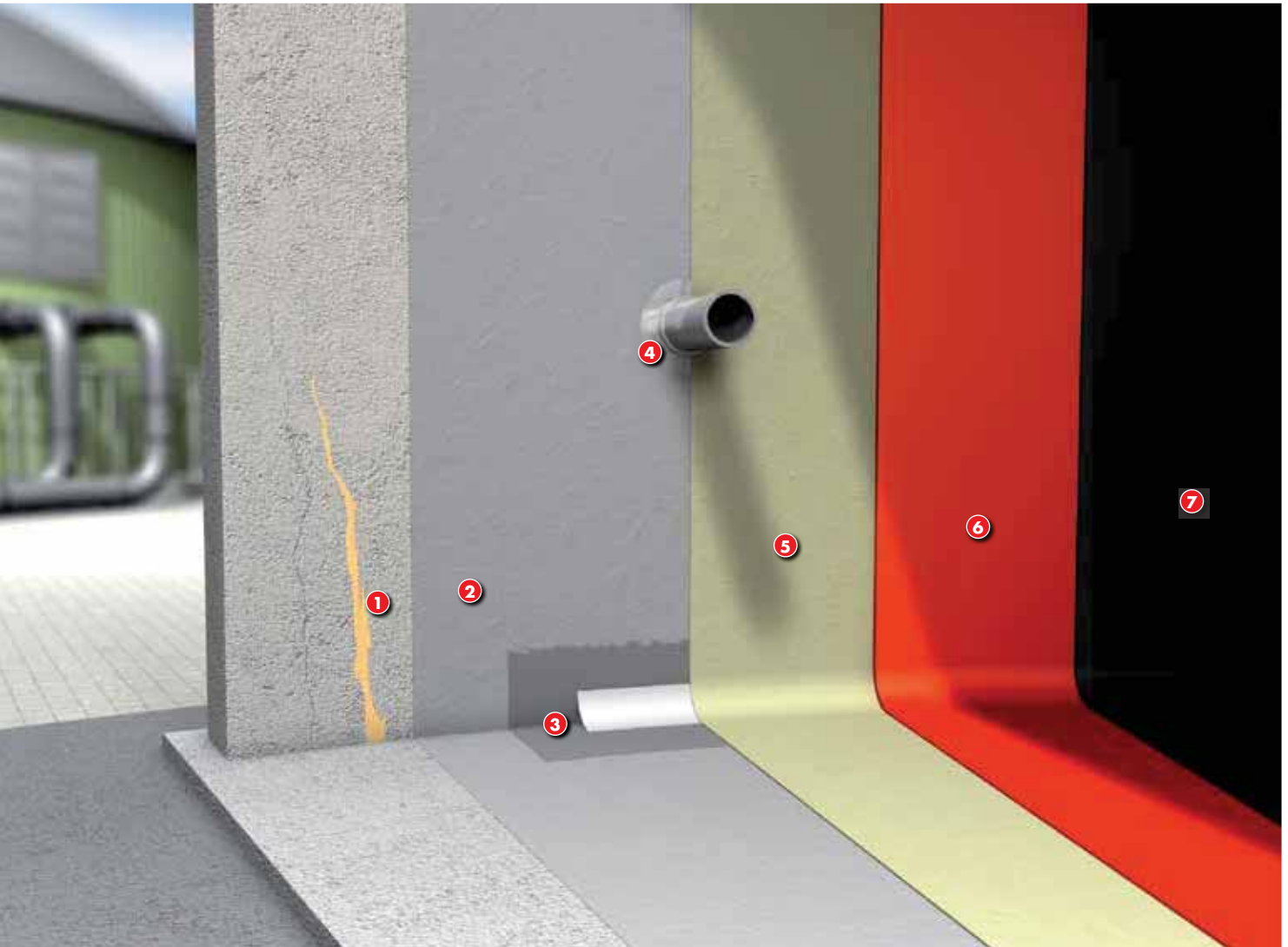
4 Overlapping joints

As an alternative waterstop tape connections can be carried out by overlapping by a min. of 50 mm. The waterstop tapes must lie securely against one another to prevent defects.



5 Corner joints

Corner joints must always be carried out with additional protection.



Protection against aggressive gases

Biogas plant

In agricultural biogas plants animal excrement and plants are processed into nutrient rich manure by fermentation. This process releases high concentrations of biogenic sulphuric acid. The internal concrete or steel wall surfaces are attacked by these gases and can become corroded and porous. In isolated cases the destructive influence is so great that after only a few years there are many centimetres of concrete missing.

Waterproofing specific to use and upkeep is indispensable as the plant operator is solely responsible for any water pollution claims. For this reason the main focus of all protective measures centres around the exposure of the interior to chemicals. The SCHOMBURG system products have a targeted anti-corrosive function and protect the surrounding wall areas from aggressive gases.

KOMPONENTEN

AQUAFIN®-P1 / AQUAFIN®-P4

ASOCRET-KS/HB

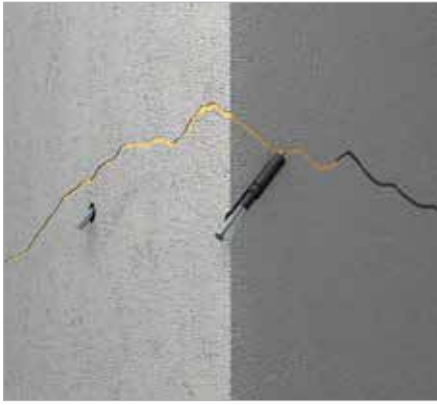
ASOCRET-BIS-1/6

ASOCRET-BIS-5/40

ASODUR®-SG2

ASODUR®-SG2-thix

ASODUR®-V2370



1 Crack repair

Static or water bearing cracks in concrete are to be professionally sealed (see the chapter on "crack repair").



2 Evening out the surface

Apply ASOCRET-BIS-1/6 over the surface in one operation up to a thickness of 6 mm. Apply "wet in wet" over a slurry bond coat of ASOCRET-KS/HB.



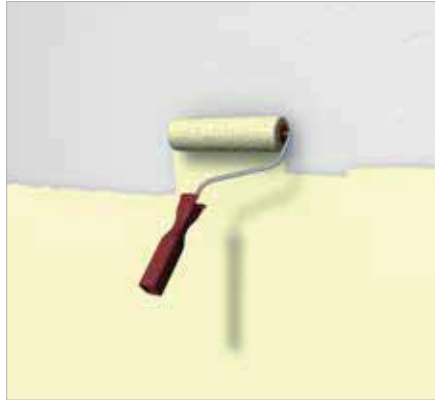
3 Producing a covered fillet

Brush apply ASOCRET-KS/HB. Then whilst this coat is still wet, produce a covered fillet with a minimum side length of 4 cm, by applying ASOCRET-BIS-5/40 "wet in wet" by steel trowel or pointing trowel along the wall/floor junction.



4 Transition over flange constructions

Where there are flanges within the construction, apply the special primer ASODUR®-SG2-thix over the flange construction using a short haired fur roller avoiding bubble formation and immediately broadcast with coarse quartz sand. Once adequately hardened further waterproofing measures can be carried out.



5 Primer application

Wall: Firstly evenly apply ASODUR®-SG2-thix with a short haired fur roller, followed by thoroughly working into the surface with a priming brush and then back-rolling with the fur roller.

Floor: Apply ASODUR®-SG2 in sections with a twin-bladed rubber squeegee, thoroughly brush in and back roll.



6 Protective coating 1st application

Apply ASODUR®-V2370 by roller, spray or brush. Wait approx. 16-24 hours between successive coats.



7 Protective coating 2nd application

Apply another coat of ASODUR®-V2370 using the same methods.

Blind the wet primer coat with coarse quartz sand in both cases.

Robust surface waterproofing

Wastewater treatment plant

Waterproofing and repair of communal wastewater treatment plants have very specific requirements on the materials and coatings used within the structure.

Dirt and rain water emerging from the pipework into the plant is subjected to a variety of cleaning stages. Due to the variety of water qualities, the concrete surfaces are exposed to a variety of risks. Moisture penetration from the rear and bubble formation from osmotic

pressure form only a part of the type of damage which appear. For this reason, with repair measures, the concrete sections in contact with the water must be permanently protected with specially selected primers and water repellent surface waterproofing compounds.

COMPONENTS

ASOCRET-KS/HB

ASOCRET-BIS-5/40

ASOCRET-BIS-1/6

AQUAFIN®-RS300

ASO®-Joint-Tape-2000-S

ASODUR®-SG2-thix

ASODUR®-GBM

Quartz sand



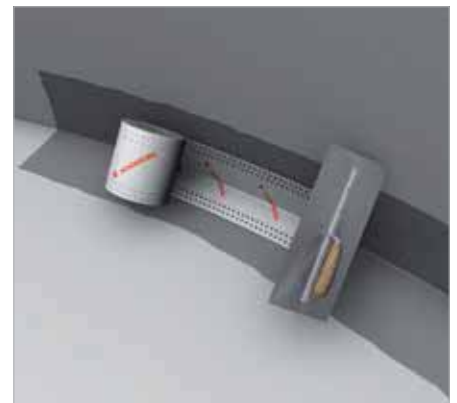
1 Evening out voids

Make good small areas of crack damage and defects up to 40 mm with a trowel or lath. Apply ASOCRET-BIS-5/40 "wet in wet" over an ASOCRET-KS/HB slurry bonding coat.



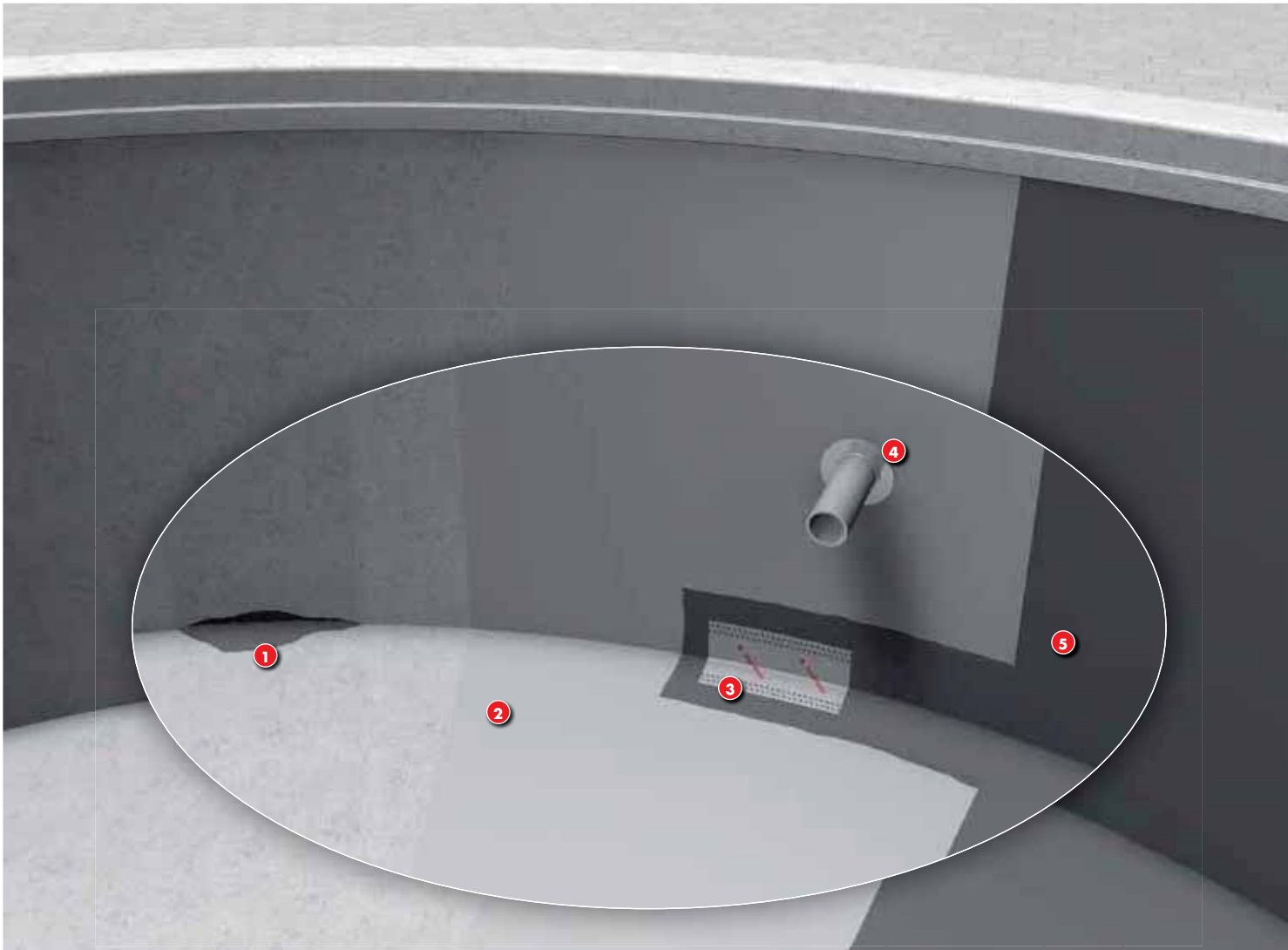
2 Evening out surfaces

Apply ASOCRET-BIS-1/6 on to the prepared substrate at the desired thickness - up to 6 mm in one application. Do not post-treat the surface with a wet brush or steel float. For a smooth transition it is possible to rub down the repaired surface with a sponge.



3 Waterproofing the wall/floor junction

At the transition between wall and floor as well as over connecting joints, brush or trowel apply AQUAFIN®-RS300 and bond the waterproof tape ASO®-Joint-Tape-2000-S without voids or folds. Completely cover over with the surface membrane.



4 Transition to flange construction

At the flange construction, apply without pinholes, the special primer ASODUR®-SG2-thix with a short nap paint roller. Once adequately hardened, further waterproofing measures can be carried out. Alternatively, the universal primer ASODUR®-GBM can be used. Broadcast quartz sand into the wet primer until blinded.

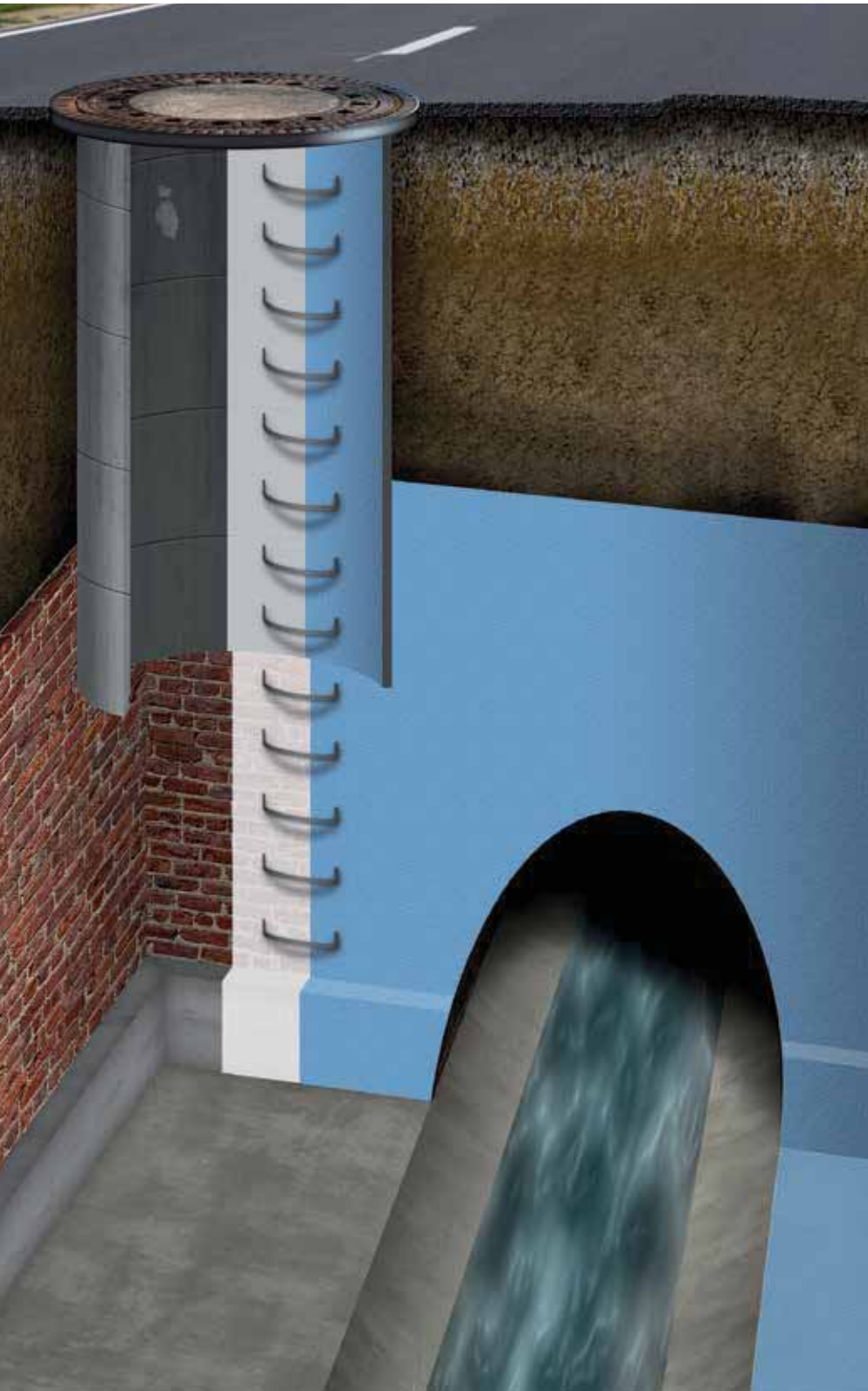


5 Waterproofing all areas

Apply a minimum of two coats of AQUAFIN®-RS300 by spray, brush or trowel.

Effective long term protection

GEPOTECH®



The protection of buildings against chemical exposure to household and industrial effluent, acids, alkalis and other aggressive substances is a particular requirement. The solvent free polyurea based coating, GEPOTECH®-11/30 offers, for such applications, not only high chemical resistance but also an exceptional abrasion resistance in heavy duty conditions.

GEPOTECH®-11/30 is also practically impervious to water and, due to its extremely high crack-bridging, permits the waterproofing and repair of systems at the risk of cracking and exposed to dynamic loads.

The numerous areas of application for GEPOTECH®-11/30 include waste water treatment constructions such as sewerage plants, shafts and pipework but also bunding walls, water tanks and swimming pools as well as multi-storey car parks and heavy duty rooms in the food industry.

Technical Data

The most important chemical and physical property values of GEPOTECH®-11/30:

- Elongation at break: 340%
- Tensile strength: 30 N/mm²
- Tear propagation strength: 125 N/mm²
- Shore hardness: 60° Shore D
- Abrasion: 0.03 mm
(Darmstadt pipe tilting jig; 250,000)
- Crack bridging: 2.0 mm
- High chemical resistance in particular against effluent etc.

In addition, the properties of GEPOTECH®-11/30 guarantee increased protection against corrosion.



1 Cleaning prior to renovation



2 Substrate preparation



3 Application of the primer



4 Spraying the coating

COMPONENTS

ASODUR®-G1248

GEPOTECH®-11/30

The material and its properties

GEPOTECH®-11/30 is a two component material, that is installed using high pressure, hot spray techniques. Through the immediate reaction of the two components, a solid coating is produced within seconds, which can be trafficked after only 2 hours and achieves its final characteristics after only 2 days. Down times during renovation measures are reduced to a minimum, which for many applications, means a competition free efficacy for GEPOTECH®-11/30. An important prerequisite for success, is the correct preparation of the substrate, even with GEPOTECH®-11/30. The special primer,

ASODUR®-G1248 is especially suitable for use beneath GEPOTECH®-11/30 and serves as protection against moisture ingress from the rear, which guarantees the required high bond strength also on wet substrates.

Overview of the most important properties

- Extremely quick, very good time savings
- High elasticity and tensile strength
- Exceptionally high abrasion resistance and impact resistance
- Very good chemical resistance against many media

Installation only by professionals

GEPOTECH®-11/30 is installed exclusively by professionals, who possess the appropriate equipment technology and are familiar with the material. To ensure the careful application and subsequent installation logging, SCHOMBURG provides all installers with a work handbook, so that the highest levels of application assurance are guaranteed.

Long lasting and robust vapour barrier for Damp substrates

Moisture penetrating from the rear and high residual moisture in green concrete substrates are frequently profoundly ruinous or extend the construction time. The special primers ASODUR®-SG2 and ASODUR®-SG3 have been used successfully for many years as prevention against the damaging influences of rising damp and are additionally highly chemically resistant and very much multi-functional in use. In addition to application

to industrial and commercial floor surfaces and agricultural buildings, their use in private houses and apartment construction is always advisable if there is a risk of rising damp and precious floor finishes such as natural stone or parquet need to be protected.

COMPONENTS

ASODUR®-SG2

ASODUR®-SG3



1 Substrate preparation

Substrates must be load bearing, adequately sound (concrete quality min. C 20/25 and cement:sand screed quality min. CT-C35-F5) as well as free from separating and adhesion inhibiting substances such as e.g. paint residues. Dependent on the condition of the substrate to receive finishes, use suitable preparation methods such as e.g. planing.



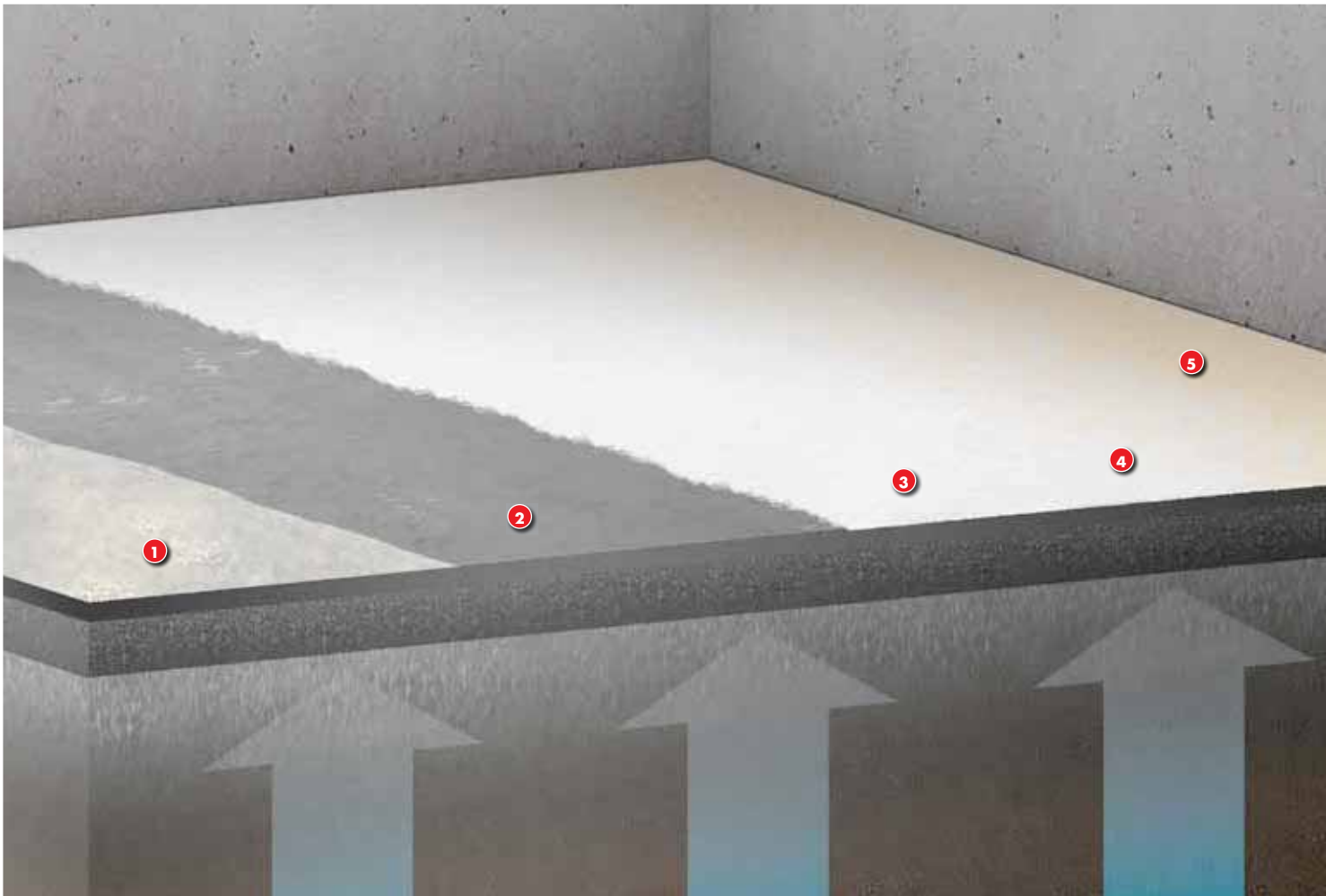
2 Cleaning – preparation

Dust particles created during substrate preparation measures are to be thoroughly cleaned using a broom, dampening the substrate surface with mains water improves capillary penetration of material applied later.



3 Application step

The properly mixed 2 component material is applied in portions over the pre-wetted substrate (optically matt damp) using a twin-bladed rubber squeegee and thoroughly worked into the surface using a scrubbing broom.



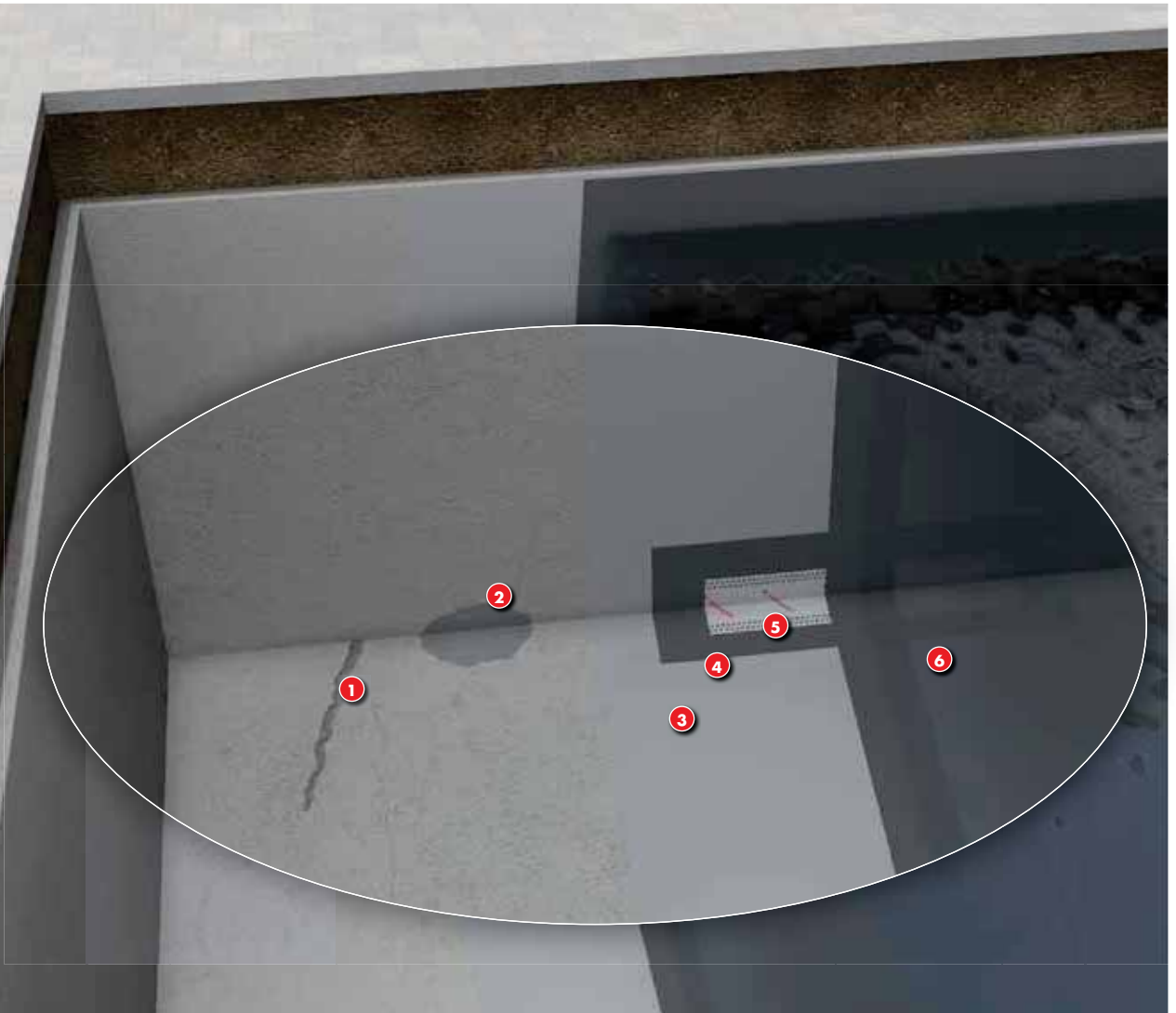
4 Application step

In order to guarantee an even film of material over the substrate surface, the freshly applied material should be once again back-rolled with a suitable lambs wool roller.



5 Application step

Immediately after the material has been applied, evenly broadcast a suitable quartz sand into the freshly applied primer coat.



The correct protection for all water qualities

Process water containers

Whether for commercial, industrial or agricultural use - process water must have a specific quality dependent on the application stipulated. Irrigation water must be free from materials deleterious to the ground and to plants. Cooling water must not damage the cooling unit with lime or algae. Despite the various contents and quality classes all process water has one

thing in common - it does not need to be drinking quality but still places high demands on the substrate of the particular container. Optimum restoration measures specific to each project can durably and assuredly protect the process water container from potential risks.

COMPONENTS

ASOCRET-KS/HB

ASOCRET-BIS-5/40

ASOCRET-BIS-1/6

AQUAFIN®-RS300

ASO®-Joint-Tape-2000-S



1 Crack repair

Professionally evaluate and close cracks (see chapter on crack repair).



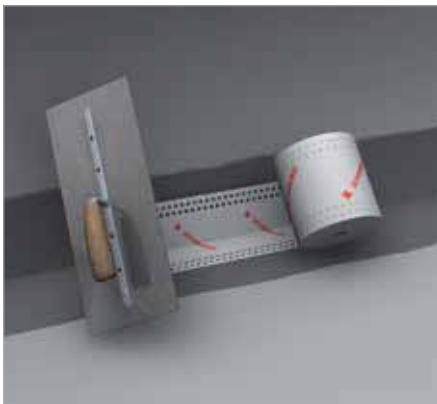
2 Repairing voids

Seal voids and defects with a single application of ASOCRET-BIS-5/40 up to a maximum thickness of 40 mm. Apply "wet in wet" over an ASOCRET-KS/HB slurry bonding coat.



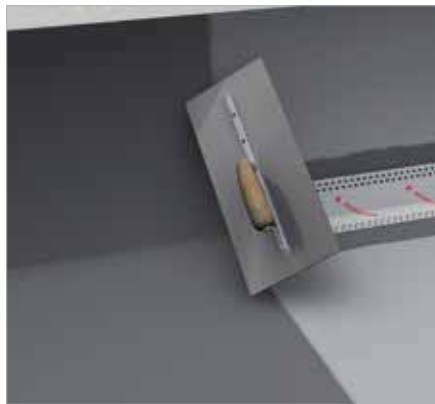
3 Evening out the surface

Apply ASOCRET-BIS-1/6 to the prepared substrate at the desired thickness (up to 6 mm in one layer) and post-treat with a felt or sponge board.



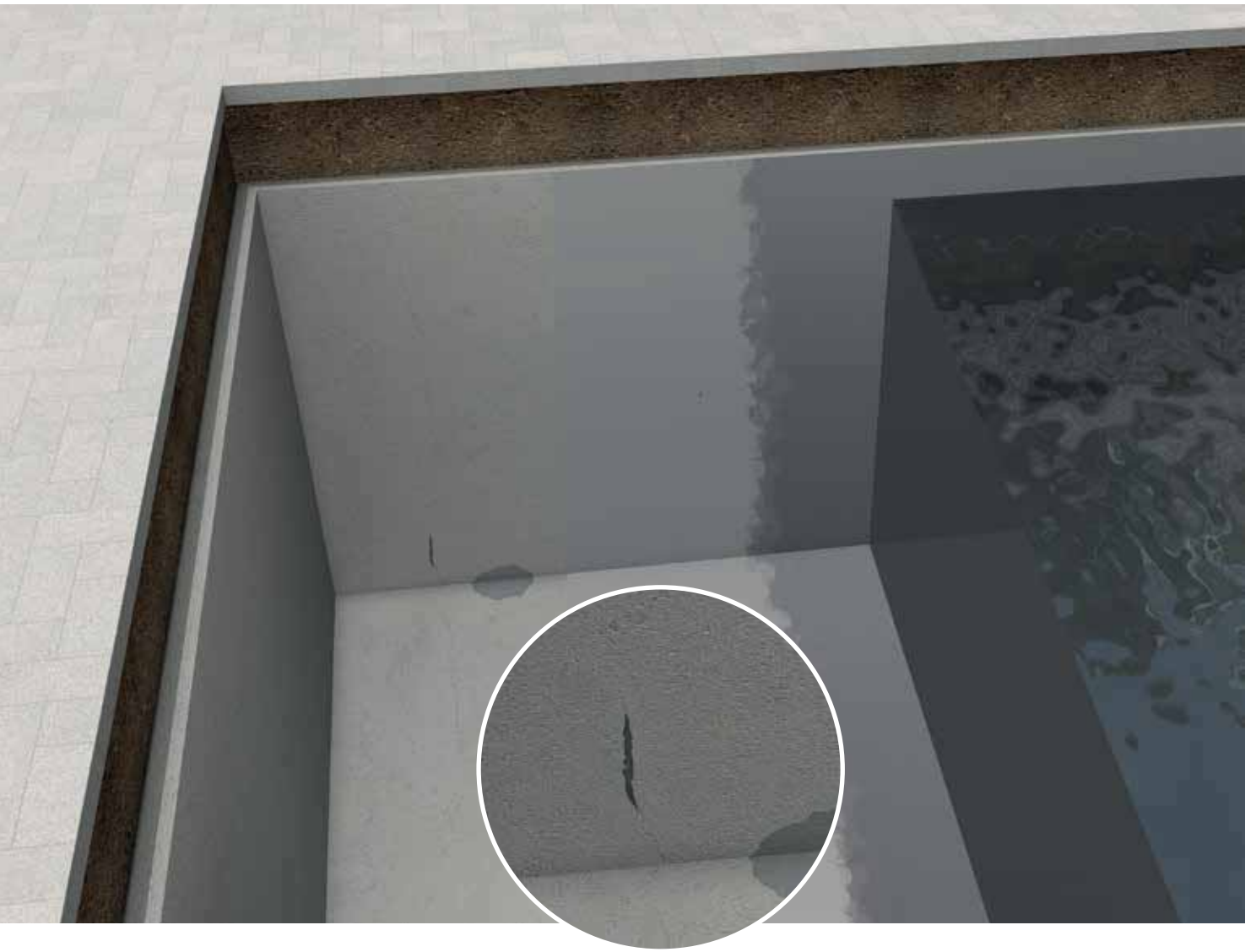
4 Waterproofing the wall/floor junction

At the wall and floor transition, as well as over connecting joints, trowel or brush apply AQUAFIN®-RS300 and bond the waterproof tape ASO®-Joint-Tape-2000-S without voids or folds. Completely cover whilst waterproofing the main areas.



5 Waterproofing all areas

Apply a minimum of two coats of AQUAFIN®-RS300 by spray, brush or trowel.



Retrospective

Crystalline waterproofing

Crystalline waterproofing forms a fascinating waterproofing method. Once applied to the concrete surface, the active ingredients from the waterproofing material penetrate inside the building component and cause a brisk crystal growth. The smallest pores and cracks become filled with crystals and impermeable to capillary water. "Foe becomes friend" - water penetrating the building component behaves as a "transport medium" for the active ingredients and takes them deep into the substrate. An additional advantage - waterproofing with AQUAFIN®-IC is suitable for potable water containers.

COMPONENTS

FIX 20-T

ASOCRET-IM

AQUAFIN®-IC



1 Opening cracks and damaged areas

Remove all loose debris from the cracked and damaged areas. Chisel out the static crack to a width of at least 20 mm and a depth of 25 mm.



2 Immediate waterproofing of water leaks

Seal water leaks professionally with the rapid hardening mineral-based plugging mortar, FIX 20-T.



3 Mixing FIX 20-T

Homogenously mix a quantity of powder appropriate to the water leak with approx. 25% water to a pliable consistency. Form a plug of the right size, by hand. Work quickly – the pot life is only approx. 3 minutes.



4 Plugging the water leak

Press the formed plug into the area where there is running water. Hold the plug tightly in place until it has hardened. Immediately work the plugged area with a trowel.



5 Repairing voids

Make good faulty areas with FIX 20-T or alternatively ASOCRET-IM.



6 Producing a covered fillet

Produce a covered fillet of edge length approx. 4 cm, with ASOCRET-IM and apply into the freshly slurried area with AQUAFIN®-IC, wet in wet. After 1 - 3 hours, overcoat the ASOCRET-IM with AQUAFIN®-IC.



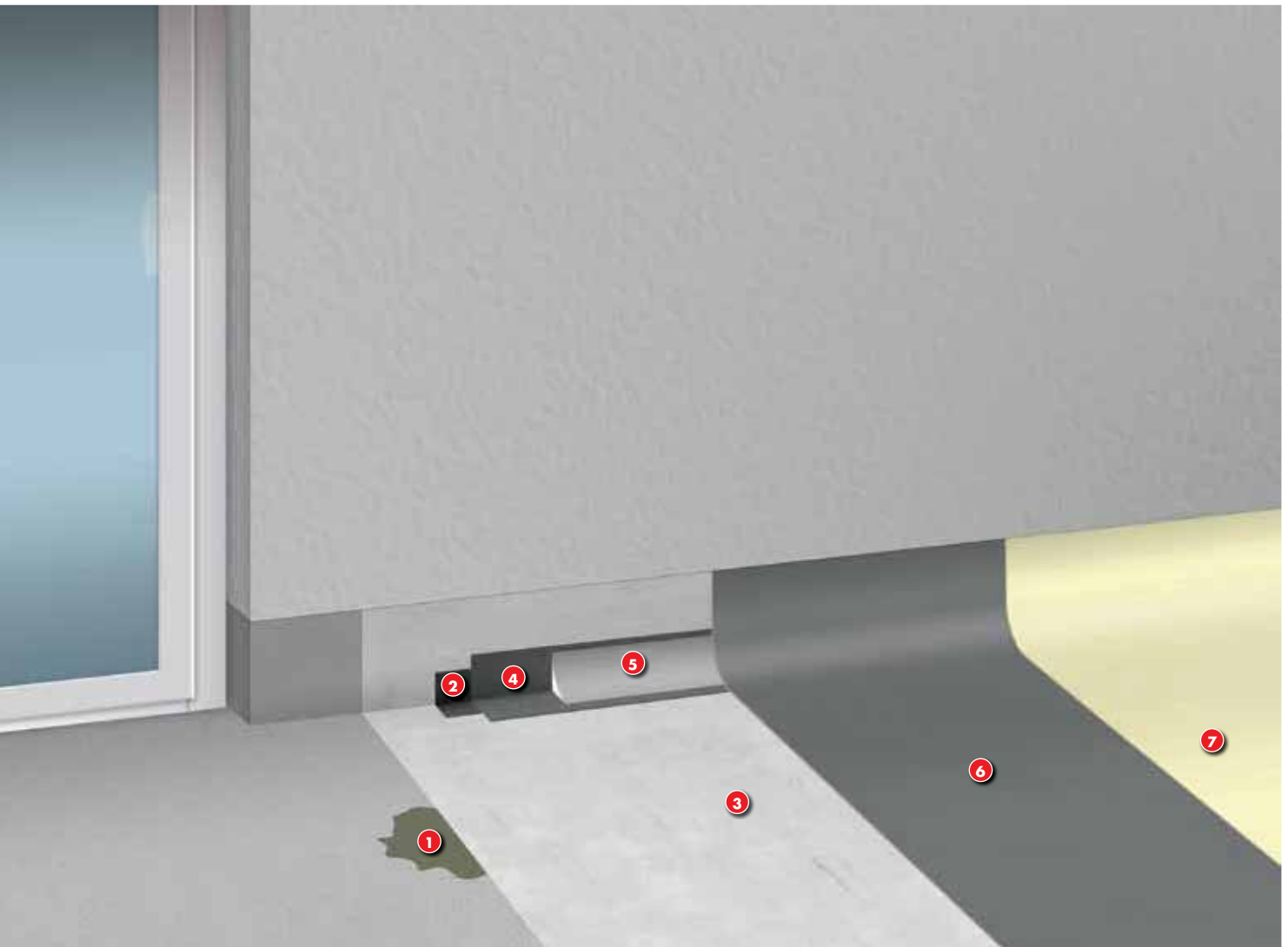
7 Application of AQUAFIN®-IC

Dampen the area to be waterproofed, with clean water. Apply two coats of AQUAFIN®-IC at the required consumption rate with a roofers broom, brush or by spray. Apply the second coat, whilst the first coat is still tacky and has not dried out.



8 Post treatment

Protect the fresh coating from weathering such as e.g. sun, wind, rain and frost etc. Keep the waterproofing coat damp for a minimum of 3 days. Carry out the first damping process after approx. 1 day.



Assured balcony restoration system

Balcony restoration

Balconies and terraces surely belong to the most problematical of structures, which need renovating today. Not least the extreme thermal demands place heavy requirements on the waterproofing membrane and the surface finish. Very great temperature variations from -25°C to $+75^{\circ}\text{C}$, frequently with short intervals, lead to enormous stresses on the surface.

An alternative to tile installation is a SCHOMBURG system coating with an epoxy resin-based primer ASODUR®-SG3 and the lightfast, elastic coating ASODUR®-EB/L. The material is UV stable, is very hard and good underfoot. This system,

with its viscoplastic property can absorb thermal stresses, which appear and offers an architectural and sensible alternative to tiles. The optical design possibilities when mixed with coloured chips or anti-slip finishes when broadcast with quartz sand know no boundaries.

With this system, a permanent safe surface with a level of resistance is achieved.

COMPONENTS

ASOCRET-M30

RD-SK50

ASODUR®-GBM

ASODUR®-EMB

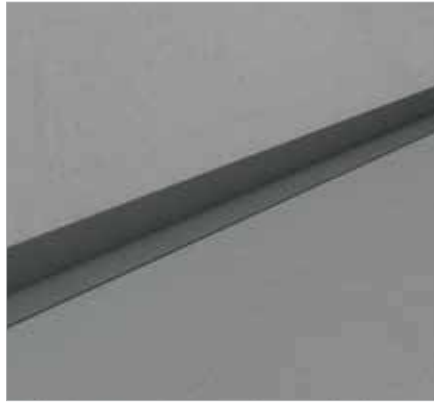
ASODUR®-SG3

ASODUR®-EB/L



1 Filling voids

Close large voids with ASOCRET-M30 by trowel to thicknesses from 3 - 30 mm.



2 Edge insulation strips

Lay the RD-SK50 edge insulation strips at the wall/floor transition. Bond to the substrate with the self adhesive strip. Once fixed, the RD-SK50 is pressed against the wall, so that restraint or sound bridges are prevented.



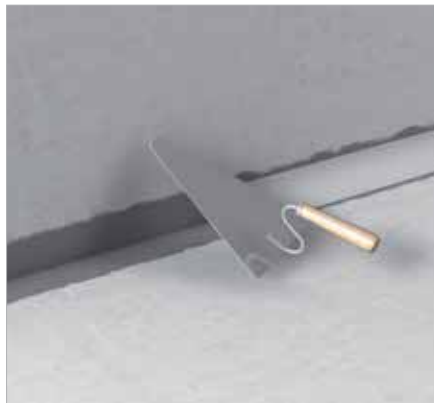
3 Smoothing to falls (if required)

Mix ASOCRET-M30 with the prescribed quantity of water and apply on the primed substrate up to a max. of 30 mm in one operation. To select the primer, please refer to the current, valid technical data sheet.



4 Priming the covered fillet

Cut the RD-SK50 edge insulation strip flush at the transition area. Prime the area where the covered fillet will be produced, with ASODUR®-GBM.



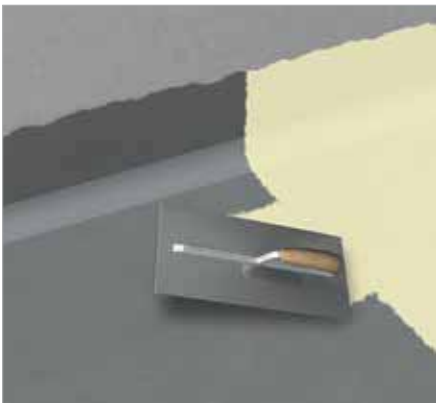
5 Producing a covered fillet

Produce a covered fillet of edge length approx. 4 - 6 cm, with ASODUR®-EMB and apply into the area freshly slurried with ASODUR®-GBM, wet in wet.



6 Primer application

Roller apply the ASODUR®-SG3 without pinholes, evenly in a criss-cross manner.



7 Flowing coat

ASODUR®-EB/L is applied in one coat to a thickness of approx. 2 mm with a rake.



Quick and easy

Impregnation of facades

The impregnation of facades is one of the most frequently occurring measures to do with the restoration and renovation of buildings. The external area of a building is exposed without protection to the weather such as e.g. rain, sun, wind, frost etc. Impregnating the facade neatly and professionally protects the substrate against penetrating moisture via hydrophobic or strongly water repellent substances. At the same time trapped water vapour must be able to escape in order to permanently avoid moisture damage.

ASOLIN-SFC45 offers retrospective protection against damage from the weather for facades constructed in brick, clinker, natural stone, sand-lime blocks as well as render and can therefore be successfully implemented as part of the maintenance and preservation regime.

COMPONENTS

ASOLIN-SFC45



1 Cleaning

Thoroughly clean the surface to be impregnated using a high pressure washer with rotating nozzle. Completely remove all contamination as well as moss or algae.



2 Application of the impregnator

Using a lamb's wool roller apply the solvent free ASOLIN-SFC45 facade cream to give full and complete coverage. With the creamy consistency it is possible to achieve a very efficient, neat and totally secure application. During application a buffer of the material remains on the surface which permits a very deep penetration of the active material into the substrate.



General Information



Mineral-based concrete waterproofing with the BETOCRETE® C-Series

The BETOCRETE® C-Series becomes an integral part of the concrete matrix with mechanical damage to the microstructure of the exposed surface being seamlessly replaced by the layers beneath without the need for extensive restoration measures. Following their addition to the fresh concrete, the BETOCRETE® C-Series systems are active until the building reaches the end of its useful life.

The BETOCRETE® C-Series can be tailored to the type of application and is compatible with usual construction methods in areas in contact with the ground and with water and the known systems:

- „Bituminous tanking - black tank“
- „Waterproof concrete tanking - white tank“
- „Bentonite waterproof tanking - brown tank“

Products in the BETOCRETE® C-Series are approved concrete additives and validated to EN 934-2, EN 206 (as well as DIN 1045) and do not require further test certification.

COMPONENTS

BETOCRETE® C-17

BETOCRETE® C-21

BETOCRETE® C-36





Crack formation in the concrete surface



Crack healing by auto-reactive function in the concrete



Pore blocking crystals
(approx. 5000 times magnification)

BETOCRETE® C-17

Second generation liquid crystalline additive. For use in areas designated to EN 206 / DIN 1045. Approved additive of the concrete plasticiser activity group.

- Intense function with CEM III, CEM II and CEM I cements.
- Waterproofs by blocking pores and a crystalline action.
- Proven crack healing up to 0.4 mm.
- Certificated for potable water.

BETOCRETE® C-21

Third generation liquid crystalline additive. For use in areas designated to EN 206 / DIN 1045. Approved additive of the waterproofing agent activity group.

- Intense function with CEM III, CEM II and CEM I cements.
- Light plasticising effect.
- Acts by blocking pores and hydrophobic action.
- Proven crack healing up to 0.4 mm.

Active crack healing

The components of the BETOCRETE® C-Series are specifically designed for the promotion, boosting and improvement of the crack healing ability of the concrete matrix. In a series of intricate tests defined surface cracks were induced in the test pieces and these were then subjected to continuous water pressure. In a clear time frame, all variants in the BETOCRETE® C-Series achieved an auto-reactive crack healing function with cracks from 0.2 to 0.4 mm in width, whilst the non-modified reference sample showed no reduction in the water flow rate.

Reduction in water penetration

Test reports from independent test laboratories from renowned concrete manufacturers showed that their water impermeable concrete formulations with a mean penetration of 10 mm was reduced to 2 mm (80% improvement) through the use of the BETOCRETE® C-Series. When using the BETOCRETE® C-Series the permeability to water is reduced by up to 10 times.

BETOCRETE® C-36

Second generation crystalline powder additive. For use in areas designated to EN 206 / DIN 1045. Approved additive of the waterproofing agent activity group. BETOCRETE® C-36 is a pure, highly concentrated combination of active ingredients.

- Intense function with CEM III, CEM II and CEM I cements.
- Waterproofs by blocking pores and a crystalline action.
- Proven crack healing up to 0.4 mm.

The BETOCRETE® C-Series allows the production of active "waterproof concrete systems - white tanks". Components of the BETOCRETE® C-Series can be declared part of a contractual guarantee.

Speak with us and we will gladly give you more information.

Extending the lifetime

The crystalline waterproofing function of the BETOCRETE® C-Series allows a clear increase in the life expectancy of concrete reinforcing steel. According to the method of forced chloride penetration as defined by the Federal Institute for Civil Engineering (Hydraulic), the BETOCRETE® C-Series can delay the time of depassivation of the reinforcing steel by up to 30 years. This effect is especially distinct for concrete produced with w/c values greater than 0.55.



Waterproofing joints and details with joint tapes

Every construction component has corners, edges and penetrations in the form of pipes, ducts, conduits, screws and dowels, which must be waterproofed. It is also important when protecting buildings from dampness to integrate details such as floor drains, wall and floor junctions or joints between construction components.

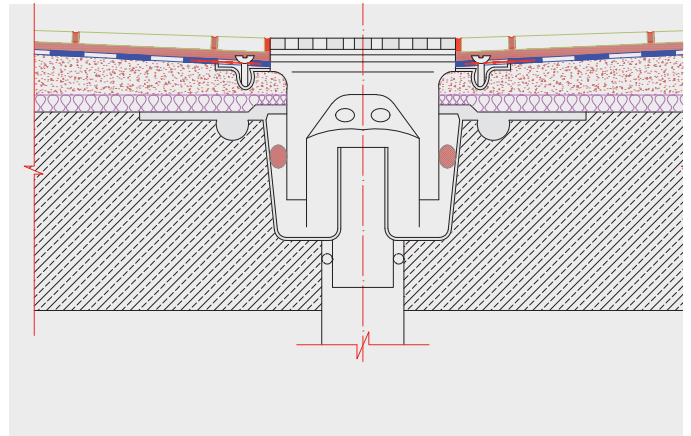
In addition joint tapes must be able to safely accommodate or dissipate possible movement and stresses from the substrate.



In particular, waterproofing solutions to details with joint tapes must protect components and structures, together with waterproof coatings, against chemicals or materials critical for hygiene.

Often the reason for damage is found to be the use of unsuitable joint tapes or pre-formed sections.

For this problematic area SCHOMBURG offers a wide and varied range of joint tapes and pre-formed sections.



Advantages of waterproof tape construction from the SCHOMBURG range:

Impermeability to water

The most important requirements for waterproofing materials, the impermeability to water combined with high elasticity and crack bridging, are verifiably completely fulfilled by all types of SCHOMBURG joint tapes and pre-formed sections.

Vapour permeability

SCHOMBURG joint tapes are water vapour permeable. If the waterproofing material used is applied both above and below the joint tape when overlapping joints, then it can safely dry out with SCHOMBURG joint tapes.

High resistance to alkalis

In the case that alkaline solutions encroach on the waterproof coating, SCHOMBURG joint tape materials ensure that there is no peeling or break down of the joint tape.

Resistance to chemical attack

It is especially important when producing waterproofing solutions in installations where there is high chemical exposure, that the joint tape used must be resistant to the potential exposure to aggressive inorganic or organic substances. The relevant verification for SCHOMBURG joint tapes can be obtained from our documentation.

Combining the waterproofing material with the joint tape

The factory produced materials for bonding the SCHOMBURG joint tapes guarantee a very good surface bond between the waterproof material used and the joint tape. Thereby a good bond to the substrate is also ensured.

Security with pre-formed sections

SCHOMBURG offers a wide range of well conceived pre-formed sections. This increases the security of the whole activity and saves costs. Cutting and potential risk of complaint arising from this action is not applicable.

Project related special designs

If the waterproofing of junctions and joints cannot be secure or carried out efficiently with standard types and solutions then we recommend ASO®-Joint-Tape-2000-S-wide. This material allows special designs related to the project to be easily produced for the building site.



High quality additives for the preparation of mortars, renders and concretes

Even the ancient Romans improved the properties of mortars through the addition of dry and liquid additives.

The reduction of water permeability, hydrophobicity, air entrainment and the improvement of compressive, tensile and flexural strengths are desired property profiles for additives that find applications in the everyday preparation of mortar and render mixes as well as concrete.

With the product range AQUAFIN®-LATEX-M, ADIPLAST and ASOLIT we have converted over 60 years experience in the preparation of system construction materials to the requirements of modern additives.

Simple application and dosing tolerance make these products into a dependable companion for all tradesmen on the building sites of the world.



ADIPLAST-M and ADIPLAST-P

Areas of application:

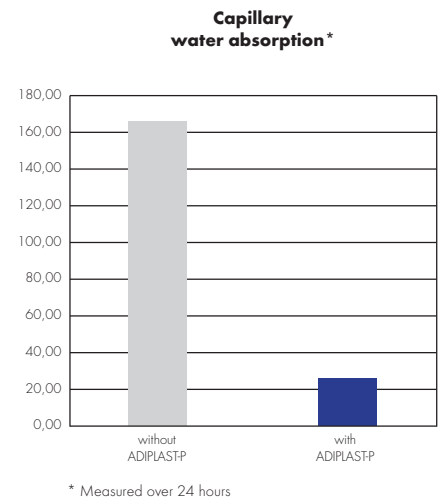
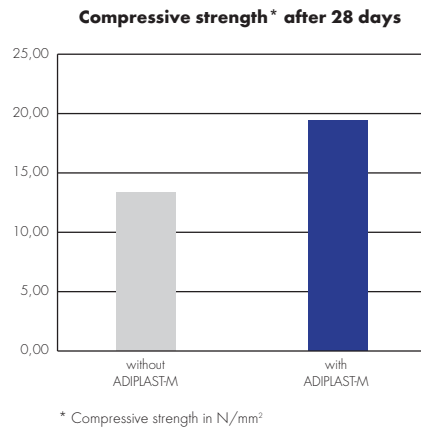
Waterproofing agent for the preparation of high quality mortars, renders and concrete. The addition of ADIPLAST-M and ADIPLAST-P reduces the risk of moisture damage and considerably increases the lifetime of structures.

Properties:

- Powder form dry mix, chloride free
- Improves the resistance to aggressive influences
- Plasticizing effect
- Reduces water absorption
- **ADIPLAST-M:** Increases the waterproof properties and compressive strength of mortar/concrete
- **ADIPLAST-P:** Improves the weather resistance of renders, increases the number of air voids

Advantages:

- Simple dosage
- Proven water reduction when preparing mortars and concrete
- Lower consumption (max. 2% of cement)
- Improves workability



AQUAFIN®-LATEX-M

Areas of application:

Handling compatible bonding emulsion for the preparation of high quality concrete, mortar and render.

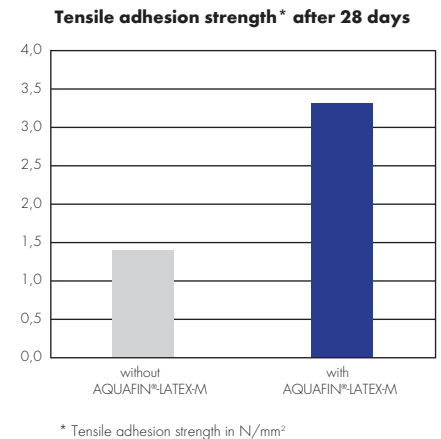
The addition of AQUAFIN®-LATEX-M considerably extends the lifetime and durability of modified mortars and concrete mixes.

Properties:

- White liquid, solvent free
- Suitable for interiors and exteriors
- Reduces water absorption

Advantages:

- Simple dosage to the gauging water
- Increases the elasticity and raises the flexural strength
- Large increase in tensile adhesion
- Reduces water permeability especially in concrete
- Minimises the shrinkage behaviour
- No premixing required



ASOLIT-LP/K

Areas of application:

Lime replacement and air entrainer for the preparation of robust mortars and concrete for exterior and interior renders, screeds, masonry mortars, concrete blocks, pavement flagstones, bulk concrete in civil underground engineering.

Properties:

- Forms air voids in mortars
- Replaces slaked lime
- Plasticizing function
- Increases frost and weather resistance

Advantages:

- Simple dosage
- Reduces water demand
- Noticeably improves the application properties



The correct waterproof membrane for each type of exposure

- Suitable for retrospective substrate treatment not at risk of cracking
- Suitable
- Suitable as protection against the risk of infiltration when combined with a flexible mineral-based waterproof slurry
- Not suitable

Mineral-based waterproof slurry	AQUAFIN®-1K	AQUAFIN®-2K	AQUAFIN®-2K/M	AQUAFIN®-RS300
Structural waterproofing				
Structural waterproofing against ground moisture	■	■	■	■
Structural waterproofing against occasional standing seepage water	■	■	■	■
Structural waterproofing against water under pressure	■	■	■	■
Retrospective structural waterproofing	■	■	■	■
Basement waterproofing to the interior	■	■	■	■
Lamellar waterproofing for openings up to 0.25 mm wide	-	-	■	-
Waterproofing in and under wall bases	-	■	■	■
Transition wall/floor junction	■	■	■	■
Transition plinth waterproofing	■	■	■	■
Waterproofing containers – from internal water pressure				
Potable water containers	-	-	■	-
Sewerage containers	-	■	■	-
Domestic water containers	■	■	■	■
Sewerage plants	■	■	■	■
Overflow basins	■	■	■	■
Fountains	■	■	■	■
Bonded waterproofing with tiled finishes				
Balconies / terraces	-	■	■	■
Shower areas in private residencies	-	■	■	■
Shower areas in public buildings	-	■	■	■
Swimming pools	-	■	■	■
Swimming pool surrounds	-	■	■	■

Bitumen-based waterproof membranes	COMBIDIC®-1K	COMBIDIC®-2K-CLASSIC/-PREMIUM	COMBIFLEX®-C2/P	COMBIFLEX®-EL
Structural waterproofing				
Structural waterproofing against ground moisture	■	■	■	■
Structural waterproofing against occasional standing seepage water	■	■	■	■
Structural waterproofing against water under pressure	■	■	■	■
Retrospective structural waterproofing	■	■	■	■
Lamellar waterproofing for openings up to 0.25 mm wide	-	-	-	■
Fixing protective and drainage boards	■	■	-	-
Full bed bonding of perimeter insulation	-	■	-	-

Note: Refer to the technical data sheets of the products used.



Glossary

Bitumen tanking – black tanking

Black tanking refers to a construction in which the watertightness is ensured via tub-shaped waterproofing with bitumen. Bitumen or elastomer-bitumen sheet membranes or high build polymer modified bitumen coatings are used.

Bond, adhesive seal

An adhesive seal permits the transmission of forces through a bond resistant to compression and tension. With this type of bond a repair can achieve the reinstatement of the load bearing capacity and safeguards cracked building components. Dependent on the filler used, the strength properties can be re-produced and the loose joint eliminated.

Bond, elastic

With dynamic cracks, an elastic bond permits a bond to both edges with limited elasticity, dependent on the filling material. The transmission of compressive and tensile forces can however not be ensured.

Crack, dynamic

A dynamic crack is a crack in the substrate with moving edges (e.g. as a consequence of temperature changes or changing mechanical loads). These cracks must be sealed with an elastic material.

Crack plugging

Crack plugging is carried out during crack repair and crack waterproofing. The crack is sealed or plugged on the surface with a system compatible material prior to injecting injection resins. These measures prevent uncontrolled leakage of the injection material during the injection process. At the end of the repair measures the plugging material can be removed again from the surface dependent on requirements, polished (ground) or overtrawelled.

Crack, static

A static crack is a crack with non-moving or rigid edges. These cracks are to be adhesively sealed to be rigid.

Degree of moisture penetration

The degree of moisture penetration serves as an assessment of damp buildings and is the ratio of existing moisture content to the maximum water absorption. The degree of moisture penetration therefore indicates what percentage of a building's pores are filled with moisture. Note however that every building material has a "background moisture", the so called equilibrium moisture, which is dependent on the ambient humidity.

Degree of salting / salt analysis

With salt damaged substrates the substrate is evaluated by drilling core samples. Thus the type of salt present (chloride, sulphate, nitrate) and the salt content in the masonry work is determined. The actual plaster system is specified together with the total degree of salting in accordance with the WTA data sheet on restoration plasters.

Fluorosilicate application/salt conversion

When applying fluorosilicates, readily soluble salts are converted into sparingly soluble salts. This is necessary to avoid renewed early salting of render systems during restoration work. Damage due to delamination caused by salt crystallisation or hygroscopic moisture is therefore precluded.

Grid float method

The grid float method is a working technique for restoration plaster and gypsum plaster surfaces. Here the plaster surface, which has already stiffened, is roughened up or the laitance layer removed with a „grid float“ (french = plane) and an open pored plaster surface produced.

Hydrophilic

Hydrophilic means a love of water. Hydrophilic building materials excel through a tendency to absorb high levels of water.

Hydrophobic

Hydrophobic substances reject water. On hydrophobic building materials, water drops form as pearls with strongly rounded surfaces. The steeper the contact angle then the stronger the water repellent property (hydrophobic).

Hygroscopic moisture

Hygroscopic moisture concerns water absorption by means of salts in the substrate. Salt crystals are anxious to absorb moisture. The moisture absorption occurs as a rule from the available humidity and the moisture disperses from the surface of the render into the substrate.

Injection without pressure (retrospective horizontal damp-proof barrier)

With injection without pressure, the material is injected through bore holes in the substrate. Dispersion is achieved exclusively through gravity or the absorption of the substrate. The bore holes are filled with injection material until no more is taken into the substrate.

Joint, construction joint

Construction joints are work related interfaces between buildings or building elements with continuous reinforcement e.g. in concrete construction when casting concrete in numerous sections. It is sought to produce a high as possible bond between neighbouring concrete sections. Waterproofing against penetrating water is ensured through retrospectively injected pressure grouting pipes or expanding joint tapes.

Joint, movement joint

External influences such as loading and varied behaviour of materials with temperature fluctuations, cause stresses between the building materials used, These stresses can be reduced through the suitable positioning of movement joints that guarantees freedom of damage.

Negative water pressure

When waterproofing buildings this refers to exposure to the rear of the waterproof system. The exposure degree plays a part e.g. with retrospective waterproofing on the inside, with average damage to the substrate as well as through water collection in the interior when applying in a new build already waterproofed from the outside.

Polymer modified bitumen

Polymer modified high build bitumen coatings are composed of a combination of bitumen, polymer dispersions and special fillers. Polymer modified bitumens form a high quality elastic and watertight coating once fully dried.

Pressurised injection (low pressure < 10 bar – retrospective horizontal damp-proof barrier)

With pressurised injection, the material to be injected is injected through packers into the substrate. Dispersion is achieved with pressure whereby any existing water in the pores is pushed out by the material injected. This process has proved to be of value especially where there are very high levels of moisture saturation.

Splatterdash coat

A splatterdash coat serves as a bonding coat for plaster/render onto masonry work. They are applied to the masonry work to form a net like appearance, semi-covering the substrate (max. 50% coverage) and to give complete coverage when waterproofing in interior situations with mineral-based waterproofing slurries. The material is applied by hand methods using a trowel or by using suitable spray techniques.

Test certificates

Test certificates serve as proof of the warranted material properties from the manufacturer and are produced by official test institutes to valid standards and test guidelines. Advice on available test certificates can be found in the Technical Data Sheets for our products.

Vapour permeable/vapour resistant

Vapour permeability / tightness denotes the permeability to water vapour through the coatings. Vapourtight structural waterproofing such as e.g. liquid polymers or bituminous coatings have very low permeability and therefore can be classed as a vapour barrier. Mineral-based waterproof membranes such as e.g. waterproof slurries have considerably higher permeability. This means the coated substrate can dry out.

Wet in wet

A application process where following material applications are carried out onto the not yet dry, wet previous layer. The time span in which the particular material can be deemed "wet" varies dependent on the material type and the ambient conditions such as substrate temperature, humidity etc.

'White tub' waterproof concrete

White tubs are concrete constructions with a high resistance to water penetration (water impermeable concrete). Due to their construction 'white tubs' require no additional surface waterproofing measures. As a consequence of diffusion, water pressure or capillary absorption, 'white tubs' are not totally waterproof. Allowances must be made for the incorporation of joint waterproofing at construction joints, expansion or crack inducing joints and penetrations as well as factoring in the calculated limit of cracking of the reinforced concrete of maximum 0.2 mm where the water is not under pressure or 0.1 mm where the water is under pressure.

Product overview

ADIPLAST-M

Special waterproofing agent for mortar and concrete

PROPERTIES

- ▶ Powder based dry blend.
- ▶ Increases watertightness.
- ▶ Enhanced workability.
- ▶ Increases resistance to aggressive conditions.
- ▶ Reduced water absorption.
- ▶ Increased compressive strength.
- ▶ Improves the anti-corrosive properties of mortar/concrete.
- ▶ Chloride free.



ADIPLAST-P

Special waterproofing agent for producing high quality plasters

PROPERTIES

- ▶ Powder based dry blend.
- ▶ Increases resistance to aggressive influences.
- ▶ Improves workability.
- ▶ Reduced water absorption.
- ▶ Produces plasters with excellent hydrophobic properties.
- ▶ Increases the air pocket content and salt storage volume.



ADF®-Pipe-Gasket

For waterproofing pipe penetrations

PROPERTIES

- ▶ Composite material for sealing pipe penetrations of varying nominal widths in areas in direct ground contact against ground moisture/non-standing seepage water.
- ▶ With preformed cone.
- ▶ Size: 350 x 350 mm with edge perforation.
- ▶ Internal diameter: 110 mm.



AQUAFIN®-1K

Waterproofing slurry, rigid

PROPERTIES

- ▶ Cementitious sulphate resistant waterproofing slurry against ground water and backwater, also under negative pressure.
- ▶ On concrete and masonry, in the structural, civil and hydraulic engineering sectors, interior and exterior, for new and old buildings.
- ▶ Waterproofing material to DIN 18195, part 2, tables 7 and 8.
- ▶ Technical approval for structural waterproofing.
- ▶ Powder component of AQUAFIN®-2K.
- ▶ AQUAFIN®-1K can be brush applied, trowelled or sprayed with suitable equipment.



AQUAFIN®-2K/M

Elastomeric waterproofing slurry

PROPERTIES

- ▶ 2 component, flexible, cementitious mineral-based waterproofing slurry against ground, seepage (fluctuating) and backwater.
- ▶ For new and existing buildings in the building and civil engineering sector, for interior and exterior use as well as beneath tiles. Also for use in channels, manholes and swimming pools.
- ▶ Structural waterproofing in accordance with DIN 18195, part 2, tables 7 and 8.
- ▶ Tested according to German building regulations as a bonded waterproof system (AIV) for use beneath tiles in wet duty classifications A and B (DIN 18195, part 7) and for wet duty classifications A0 and B0 in accordance with the ZDB technical sheet „Bonded waterproof membranes“ as well as for structural waterproofing.
- ▶ Tested for water impermeability to DIN 4030 against water aggressive to concrete up to XA2 level of attack.
- ▶ Tested for resistance to liquid manure.
- ▶ Resistant to de-icing salts.
- ▶ Fulfills the AgBB scheme requirements.



AQUAFIN®-CJ1

Injection tube

PROPERTIES

- ▶ For the injection of all suitable injection resins, gels and acrylates, pressure watertight.
- ▶ Officially approved for use in the system with AQUAFIN®-P-resins.
- ▶ Internal diameter: 6 mm, external diameter: 11 mm.

**AQUAFIN®-CJ6**

Thermoplastic expanding and jointing band for waterproofing of internal construction joints

PROPERTIES

- ▶ Elastic application.
- ▶ Rapid and intense swelling.
- ▶ Completely dimensionally stable even at high temperatures.
- ▶ Swelling process inexhaustible and often reversible.
- ▶ Suitable for fresh water and salt water.
- ▶ Valid general technical approval certificate available.
- ▶ Thickness: 5 mm, width: 20 mm.

**AQUAFIN®-CJ-Set**

Complete set incl. 10 m injection tubes

PROPERTIES

- ▶ Accessory product incl. 10 m injection tube.
- ▶ Set 1 contents: 10 m AQUAFIN®-CJ1, each 20 cm ventilation tube: red and white incl. connector, 1 isolation box, injection valve, tube clamp, 2 x 10 cm heat shrinking tubes, 2 plugs, 1 tube PVC-glue, 60 plastic clips. All parts are pre-assembled.
- ▶ Set 2 contents: 10 m AQUAFIN®-CJ1, 2 standard packers, 60 plastic clips, 2 tube clamps.

**AQUAFIN®-F**

Silicification solution for producing horizontal damp proof barriers

PROPERTIES

- ▶ Retrospective horizontal waterproof barrier against capillary rising damp in masonry work.
- ▶ Ready to use hydrophobic waterproofing agent with deep protection through retrospective capillary contraction.
- ▶ Up to 95% moisture saturation when applied under pressure.
- ▶ Can be applied with either low pressure or without pressure.
- ▶ WTA approved system. (International Association for Science and Technology of Building Maintenance and Monuments Preservation.)

**AQUAFIN®-i380**

Injection cream for sequentially applied horizontal damp-proof barriers

PROPERTIES

- ▶ Ready to use, hydrophobic horizontal barrier against rising damp in masonry work.
- ▶ Very high depth of penetration with low consumption.
- ▶ Simple and safe application though pressure free injection.
- ▶ WTA approved system up to 95% moisture saturation.

**AQUAFIN®-IC**

Crystalline waterproofing slurry

PROPERTIES

- ▶ Cementitious, capillary active waterproofing slurry for the secure waterproofing of concrete substrates also against negative water pressure.
- ▶ Especially for waterproofing foundations, lift pits, water tanks and retaining structures, parking garages, tunnels, etc.
- ▶ Approved for potable water structures according to DVGW W270, W347.

**AQUAFIN®-LATEX-M**

Bonding emulsion - additive for screeds, mortars and renders - protective coating for new concrete

PROPERTIES

- ▶ Liquid - added to the gauging water.
- ▶ Solvent free.
- ▶ For interior and exterior applications.
- ▶ Reduces water absorption.
- ▶ Reduces shrinkage crack formation.



AQUAFIN®-P1

PU-injection resin

PROPERTIES

- ▶ 1 component PU-injection resin for sealing water-bearing cracks.
- ▶ Ready to use, foams quickly with high volume increase offering high resistance.

**AQUAFIN®-P4**

PU-injection resin

PROPERTIES

- ▶ 2 component elastic PU-injection resin.
- ▶ Slow reaction time, hardening to a viscoelastic pore-free material.
- ▶ Advantageous application by means of suitable injection pumps.
- ▶ Officially approved as a system with AQUAFIN®-CJ1 (injection tube).

**AQUAFIN®-RS300**

Rapid setting hybrid waterproof membrane

PROPERTIES

- ▶ For an efficient application in construction waterproofing and as a bonding membrane beneath tiles.
- ▶ Highly flexible, crack-bridging and multi-functional.
- ▶ Hydraulic cure and self cross-linking.
- ▶ Very low loss on drying.
- ▶ Rainproof, traffickable and ready to overcoat after only 3 hours on surfaces with falls.
- ▶ Vapour permeable and resistant to frost, UV and ageing.
- ▶ Resistant to de-icing salts.
- ▶ Rapid reactive through drying.
- ▶ Suitable for all load-bearing substrates conventional to construction.
- ▶ Easy and very smooth application.
- ▶ Can be brushed, trowelled or sprayed with suitable equipment.
- ▶ Solvent free.
- ▶ High sag resistance.
- ▶ Bonds to matt-damp substrates without priming.

**ASO®-Joint-Tape-2000-S**

Special waterproof tape for more demanding

PROPERTIES

- ▶ High quality composite, elastic, extremely tear-proof, waterproof, vapour permeable. Ensures the quick drying of water containing tile adhesives and waterproof coatings, high resistance to aggressive materials.
- ▶ For the watertight construction of expansion and construction joints within waterproof coatings produced with e.g. SANIFLEX, SANIFIN, AQUAFIN®-1K-flex, AQUAFIN®-2K, AQUAFIN®-2K/M, AQUAFIN®-RS300 and ASOFLEX-AKB e.g. in swimming pools, subterranean car parks and areas in contact with the ground.
- ▶ ASO®-Joint-Tape-2000-S is for use in wet duty exposure classes A0, B0, A, B, C e.g. in bathrooms, kitchens, in living areas, private and public sanitary areas, balconies and terraces, swimming pools (pool tank and surround) underground car parks, in areas in contact with the ground as well as for structural joints.
- ▶ Technically approved as a system with waterproofing materials.
- ▶ Very low emissions - GEV EMICODE EC1 PLUS.

Width: Dependent on the customer's needs, special sizes from 50 cm to 100 cm wide can be produced in the factory.

**ASO®-Systemvlies-02**

Protective fleece and slip membrane

PROPERTIES

- ▶ PP-fleece with high resistance to tearing.
- ▶ Resistant against earth borne pollutants.
- ▶ The special structure of the fabric guarantees a secure bond to the waterproof coating.
- ▶ Assists through drying of polymer modified high build bitumen coatings.
- ▶ As a protective measure against sliding or slipping of drainage or insulation boards.



ASOCRET-BIS-1/6

Mineral-based fine grain mortar
for defects from 1 - 6 mm

PROPERTIES

- ▶ Tested to DIN EN 1504-3.
- ▶ Polymer modified, cement-based fine grain mortar.
- ▶ For vertical and horizontal surfaces.
- ▶ Impermeable to water. Water vapour permeable.
- ▶ Frostproof and resistant to de-icing salts. Reduces CO₂ penetration.
- ▶ Hardens with low shrinkage and free from cracks even under dynamic load and has a high resistance to carbonation.
- ▶ Used to repair concrete as a non-slump reprofiling mortar for horizontal, vertical as well as „overhead“ areas with damage of 1 - 6 mm deep. Largest particle size: 0.5 mm. ▶ As a levelling coat and a scratch coat.

**ASOCRET-BIS-5/40**

Repair mortar for defects from 5 - 40 mm

PROPERTIES

- ▶ Tested to DIN EN 1504-3.
- ▶ Cement-based, chloride free re-profiling mortar of mortar group M2 for vertical and horizontal surfaces.
- ▶ Impedes the penetration of CO₂.
- ▶ Water impermeable.
- ▶ Water vapour permeable.
- ▶ Resistant to frost and de-icing salts.
- ▶ Used for horizontal, vertical and „over head“ areas as an anti-sag re-profiling mortar for defects from 5 - 40 mm. Thicknesses up to 20 mm are possible as a single layer.
- ▶ For the repair of concrete surfaces (e.g. concrete parapets, swimming pools etc).
- ▶ Can be trowel applied or sprayed with suitable equipment.

**ASOCRET-BM**

Filling mortar for bore holes and voids

PROPERTIES

- ▶ Pre-blended dry-mortar with high flow capacity, hardens without shrinkage and has a high capillary absorptivity.
- ▶ Used for filling voids and cracks in masonry, especially when producing retrospectively installed horizontal waterproof barriers.

**ASOCRET-IM**

Crystalline repair and sealing
mortar for concrete

PROPERTIES

- ▶ Capillary active mortar.
- ▶ For the watertight filling of opened cracks and holes, which are subsequently to be covered with AQUAFIN®-IC. Alternatively ASOCRET-IM can also be used to form covered fillets.

**ASOCRET-KS/HB**

Mineral-based corrosion inhibitor
and bonding agent

PROPERTIES

- ▶ Cement-based polymer modified fine mortar.
- ▶ Tested to DIN EN 1504-3.
- ▶ As a corrosion inhibitor for bare and shot-blasted metal reinforcement and as an bonding agent in concrete renovation.

**ASOCRET-M30**

Repair and levelling mortar up to 30 mm

PROPERTIES

- ▶ Universal use as a mortar or smoothing compound.
- ▶ For levelling and filling mineral-based floor and wall areas.
- ▶ As a repair mortar.
- ▶ As an anti-sag smoothing compound.
- ▶ As a water repellent barrier render.
- ▶ For producing mineral-based covered fillets.
- ▶ Suitable as a building skirt render.
- ▶ For preparing substrates to receive polymer modified high build bitumen coatings as well as flexible mineral-based waterproof slurries,
- ▶ Sulfate resistant.
- ▶ Rapid hardening.
- ▶ High yield and easy to use.
- ▶ For thicknesses from 3 - 30 mm in one application.
- ▶ For walls and floors.
- ▶ For interior and exterior use. ▶ CE marked in accordance with DIN EN 998-1.



ASODUR®-B351

Universal industrial and trade floor coating

PROPERTIES

- ▶ 2 component, pigmented epoxy resin.
- ▶ Self-flowing.
- ▶ Economical, can be filled with quartz sand.
- ▶ Withstands heavy mechanical loads and chemical exposure.
- ▶ Resistant to conventional cleaning materials at application concentrations.
- ▶ Resistant to weathering.
- ▶ High compressive and flexural strength.
- ▶ As a heavy duty industrial floor coating on cementitious surfaces such as concrete and screeds in production areas and warehouses. Floor areas in the food industry and commercial kitchens, workshops, laundries, on loading ramps, roadways etc.
- ▶ Does not taint foodstuffs.
- ▶ Resistant to freeze-thaw cycles.
- ▶ Resistant to plasticizers (car tyres).

**ASODUR®-EB/L**

Lightfast, elastic polyurethane coating

PROPERTIES

- ▶ 2 component, pigmented, solvent-free polyurethane resin.
- ▶ Highly light stable.
- ▶ Resistant to a number of acids and alkalis as well as conventional cleaning agents at application concentrations.
- ▶ Free from silicone (optimum intermediate bond).
- ▶ Resistant to weathering.
- ▶ Lightfast, does not yellow.
- ▶ Resistant to plasticizers (car tyres).
- ▶ For cement-based floor surfaces, e.g. on balconies and terraces, in sales rooms and show rooms, corridors etc.
- ▶ VOC free.
- ▶ Fulfills the AgBB scheme requirements.

**ASODUR®-EK98-Wall**

Adhesive and grout

PROPERTIES

- ▶ Tested to DIN EN 12004 - R2T.
- ▶ For joint widths from 3 to 15 mm.
- ▶ 2 component, solvent-free, pigmented, water emulsifiable epoxy resin.
- ▶ Withstands heavy mechanically and chemically demanding situations.
- ▶ For fixing and grouting ceramic tiles by the thin bed method on surfaces such as concrete, screed, render, plaster, existing tiled finishes as well as the DENSARE®-2002 system e.g. in breweries, commercial kitchens, laboratories, salt water pools and swimming pools.

**ASODUR®-EMB**

Epoxy repair mortar

PROPERTIES

- ▶ 2 component, solvent-free, pigmented epoxy resin mortar.
- ▶ For repairing cementitious surfaces as well as for the construction of coved fillets on e.g. industrial floors, concrete roads and ramps.

**ASODUR®-G1248**

Barrier primer for damp substrates

PROPERTIES

- ▶ Solvent free, moisture tolerant, two component epoxy resin.
- ▶ Very good bond to damp substrates.
- ▶ Can be spray applied.
- ▶ Can be overcoated after approx. 12 hrs up to 5 days at +23 °C.
- ▶ No broadcasting necessary.
- ▶ „Water vapour barrier“, conforms to class III (low) in accordance with the classifications in DIN ISO 7783-2.



ASODUR®-GBM

Priming, sealing and mortar resin

PROPERTIES

- ▶ 2 component, solvent free, low viscosity, highly fillable transparent epoxy resin.
- ▶ Resistant to dilute acids and alkalis, aqueous salt solutions, lubricants.
- ▶ Has a tendency to yellow.
- ▶ For priming and sealing of concrete and cement-based screed surfaces. Furthermore as a binder for producing smoothing mortars and screeds / mortars e.g. in production areas, warehouses and loading ramps.
- ▶ Used as a component of the GWS water pollution control system.

**ASODUR®-K900**

Highly fluid adhesive resin

PROPERTIES

- ▶ 2 component solvent-free epoxy resin.
- ▶ For a powerful bond and seal of cracks and joints in cement-based screeds and concrete.
- ▶ As a highly fluid adhesive resin for „stitching“ wide cracks in combination with screed clips.
- ▶ Includes disposable gloves and screed clips.
- ▶ Easy to use.

**ASODUR®-SG2**

Special Primer / oil and vapour barrier

PROPERTIES

- ▶ 2 component, low solvent epoxy resin.
- ▶ Moisture tolerant and impermeable to water vapour.
- ▶ Excellent bond to damp concrete substrates.
- ▶ Due to its high density, it displaces water from the surface zone and acts as a barrier against capillary rising oil.
- ▶ For producing capillary breaking joints in swimming pools.
- ▶ For priming oil contaminated, previously cleaned concrete surfaces.
- ▶ As a rigid, retrospectively applied waterproofing coat for matt damp cementitious substrates subjected to negative water pressure.
- ▶ For horizontal surfaces.
- ▶ Certified radon barrier.
- ▶ High Sd value, vapourproof to DIN EN 1504.
- ▶ Can be used in steam saunas.

**ASODUR®-SG2-thix**

Special primer - thixotropic

PROPERTIES

- ▶ 2 component, solvent-free epoxy resin.
- ▶ Moisture tolerant and impermeable to water vapour.
- ▶ Excellent bond to damp concrete substrates.
- ▶ As a rigid, retrospectively applied waterproofing coat for matt damp cement-based substrates subjected to negative water pressure.
- ▶ For vertical as well as „overhead“ areas.
- ▶ Can be used in steam saunas.

**ASODUR®-SG3**

Moisture blocking two-component epoxy resin primer

PROPERTIES

- ▶ 2 component epoxy resin.
- ▶ Solvent free.
- ▶ Low viscosity.
- ▶ Moisture and water vapour barrier to DIN EN 1504.
- ▶ Water and frost resistant.
- ▶ Resistant to dilute alkalis, acids, aqueous salt solutions and lubricants.
- ▶ Fulfills the AgBB scheme requirements.
- ▶ Used as a barrier primer against moisture and water vapour on still damp concrete/bonded screeds, which are to be coated with ASODUR systems and covered with conventional, classic floor finishes such as PVC, linoleum, carpet, parquet, tiles and others.



ASODUR®-V2370

Effluent waterproof protection

PROPERTIES

- ▶ Solvent free.
- ▶ Thixotropic.
- ▶ Abrasion resistant.
- ▶ Water, effluent and sea water resistant.
- ▶ Resistant to dilute acids and alkalis.
- ▶ Used for coating cement-based surfaces especially in the waste water sector e.g. in sewage plants, effluent pipes, biogas installations, as well as a corrosion inhibitor in hydraulic construction such as a protective coating for sluices, harbour installations and steel sheet pile walling.
- ▶ Conforms to the Chem VOC Farb V (2004/42/EC) - paints directive.

**ASOLIN-SFC45**

Facade impregnator, cream

PROPERTIES

- ▶ Water repellent, impregnating cream based on silane.
- ▶ With deep penetration.
- ▶ Applies without loss.
- ▶ Can be applied in a single operation.
- ▶ Gives colourless protection to facades when used for the water repellent impregnation of mineral-based building materials.

**ASOLIT-LP/K**Air-entraining additive,
mixed oil concentrate**PROPERTIES**

- ▶ Liquid mortar plasticizer, improves mixing process and workability.
- ▶ For producing concrete, screeds, masonry work and concrete pavers resistant to de-icing salts.

**ASOPLAST-MZ**Mortar additive, bonding emulsion,
curing agent**PROPERTIES**

- ▶ Polymer dispersion for the modification of renders, screeds, joints, wall mortars and concrete.
- ▶ Increases tensile adhesion strength, flexural strength and abrasion resistance when made with favourable w/c ratios.
- ▶ For producing polymer modified mortars, such as bonding agents, splatterdash coats, toughened renders, well bonded pointing, for screed modification and for covered fillets.
- ▶ Curing agent for fresh concrete surfaces.
- ▶ For producing bonding slurries for bonded cement-based screeds.

**BETOCRETE®-C17**Concrete admixture for crystalline waterproofing,
complies with EN 934-2:T2**PROPERTIES**

- ▶ Liquid, integral waterproofer.
- ▶ No clumping/lumping.
- ▶ Self healing effect - possible to heal static cracks up to 0.4 mm.
- ▶ CE certified.
- ▶ Concrete produced with BETOCRETE®-C17 conforms to the requirements according to the DVGW work sheets W270 and W347 for use in contact with potable water.

**BETOCRETE®-C21**3rd generation crystalline waterproofing
admixture, concrete admixture to EN 934-2:T9**PROPERTIES**

- ▶ Inorganic, liquid admixture for waterproofing / reducing the water permeability of concrete constructions.
- ▶ Liquid admixture which therefore does not tend to lump during batching.
- ▶ Mode of action is permanent and irreversible.
- ▶ CE certified.



BETOCRETE®-C36

Concrete admixture for crystalline waterproofing, complies with EN 934-2:T9

PROPERTIES

- ▶ Concrete admixture in powder form.
- ▶ Acts chemically and physically.
- ▶ Reduces the migration of chlorides.
- ▶ Permanently active.
- ▶ CE certified.

**COMBIDIC-1K**

Single component bituminous high build coating

PROPERTIES

- ▶ Single component, polystyrene-filled, polymer modified high build bitumen coating.
- ▶ Waterproof membrane in accordance with DIN 18195-2 and DIN EN 15814.
- ▶ Approved waterproof system against ground moisture, non-standing seepage water (DIN 18195-4), standing seepage water (DIN 18195-6) on masonry work or concrete.
- ▶ Bonding of protective and drainage boards.
- ▶ ASOL-FE is suitable as a priming coat (1:5 with water).

**COMBIDIC-2K-CLASSIC**

2 component high build bitumen coating (PMBC)

PROPERTIES

- ▶ Polystyrene filled.
- ▶ Seamless, jointless, crack-bridging structural waterproof membrane.
- ▶ Suitable for all conventional substrates in construction.
- ▶ Solvent free.
- ▶ Simple and economical application.
- ▶ Good slump resistance.
- ▶ Waterproofing material to DIN 18195-2 / DIN EN 15814.
- ▶ Suitable as an adhesive for insulation, protection and drainage boards.

**COMBIDIC-2K-PREMIUM**

Reactive 2 component high build bitumen coating (PMBC)

PROPERTIES

- ▶ Seamless, jointless, crack-bridging structural waterproof membrane.
- ▶ Reactive fillers.
- ▶ Suitable for conventional substrates in construction.
- ▶ Solvent free.
- ▶ Simple and economical application.
- ▶ Rainfast after a short period.
- ▶ Rapid through drying.
- ▶ High resistance to pressure.
- ▶ Waterproofing material to DIN 18195-2 / DIN EN 15814.
- ▶ Suitable as an adhesive for insulation, protection and drainage boards.

**COMBIFLEX®-EL**

2 component bitumen high build coating

PROPERTIES

- ▶ 2 component, polymer-modified, solvent free high build bitumen coating.
- ▶ Waterproof material to DIN 18195 part 2 and DIN EN 15814.
- ▶ Yields its own water through chemical reaction (quickly rainproof).
- ▶ Can also be used on matt damp substrates as well as for overcoating / repairing existing polymer modified high build bitumen coatings.
- ▶ Approved waterproof system against ground moisture up to hydrostatic pressure on masonry work and concrete.
- ▶ Can be applied without a priming coat.
- ▶ Low consumption per surface area.
- ▶ With chromate and cement free powder components.
- ▶ Approved radon barrier.



FIX 20-T

Rapid setting swellable waterproofing membrane and plugging mortar

PROPERTIES

- ▶ Chloride free, without corrosion promoting substances.
- ▶ Highly reactive rapid mortar.
- ▶ Strong bond to concrete substrates.
- ▶ Rapid setting – also under water.
- ▶ Compatible with the crystalline waterproofing system AQUAFIN®-IC.
- ▶ For interior and exterior use.

**ESCO-FLUAT**

Solution for treating salts damaging to buildings

PROPERTIES

- ▶ Solution for converting deleterious construction salts (sulphates and chlorides). Lead-free, consolidates through deep-impregnation.
- ▶ Fluorosilicate treatment of old, unplastered masonry, especially beneath waterproofing slurry coats and restoration plasters.

**GEPOTECH®-11/30**

Very heavy duty spray coating

PROPERTIES

- ▶ Solvent free.
- ▶ Extremely rapid hardening.
- ▶ High impact and abrasion strength.
- ▶ Crack-bridging.
- ▶ Protects against corrosion.
- ▶ Impermeable to liquids.
- ▶ Relatively unaffected by moisture.
- ▶ High chemical resistance.
- ▶ Resistant to weathering. ▶ Withstands high levels of radiated heat (temporarily up to +200°C).
- ▶ Exceptional bond to concrete, steel, GRP, wood etc. ▶ Evidence of resistance to liquid manure.

**Montagekleber**

Assembly adhesive for waterstops

PROPERTIES

- ▶ For bonding bentonite waterstops such as AQUAFIN®-CJ4 and AQUAFIN®-CJ6 to the concrete.

**Quartz sand**

Broadcasting and mixing sand

PROPERTIES

- ▶ Kiln dried with the appropriate particle size distribution for industrial floor coatings.

**RD-SK50**

Self-adhesive insulating edging strip

PROPERTIES

- ▶ Closed cell PE insulating edging strip.
- ▶ 50 mm deep and 5 mm thick.
- ▶ With self-adhesive base for easy fixing to the substrate.
- ▶ For avoiding sound bridges and forming mortars at the wall / floor junction.
- ▶ Especially suitable in combination with flowable floor levelling compounds such as e.g. SOLOPLAN®-30-PLUS, ASO®-NM15 etc.
- ▶ For the installation of impact sound deadening and uncoupling boards such as e.g. STEPBOARD etc.

**SOLOPLAN®-30-PLUS**

Fibre reinforced smoothing compound up to 30 mm

PROPERTIES

- ▶ Tested to DIN EN 13813, CT-C30-F7.
- ▶ Fibre reinforced, self-levelling, polymer modified smoothing compound.
- ▶ For levelling in interior and exterior areas on difficult, mineral-based substrates.
- ▶ For thicknesses from 2 - 30 mm.
- ▶ Suitable for heated screeds.
- ▶ Very low emissions - GEV EMICODE EC 1 Plus R.



THERMOPAL®-FS33

Fine smoothing compound for
THERMOPAL® restoration plasters

PROPERTIES

- ▶ Mineral-based fine smoothing compound with adhesion promoting additives, low stress and water vapour-permeable.
- ▶ For the production of a fine surface finish applied over mineral-based plasters as a finishing plaster or surface smoothing compound in interiors and exteriors especially over restoration plasters/renders THERMOPAL®-ULTRA, THERMOPAL®-SR24 and THERMOPAL®-SR44.

**THERMOPAL®-GP11**

Air-entrained backing coat plaster - WTA

PROPERTIES

- ▶ Cement-lime backing plaster for the repair of damp or salt containing brickwork beneath THERMOPAL®-SR24, THERMOPAL®-SR44-white and THERMOPAL®-ULTRA.
- ▶ As a backing coat and levelling plaster for uneven areas for producing vapour permeable and dry plaster areas on damp and/or salt laden interior and exterior walls beneath THERMOPAL®-ULTRA, THERMOPAL®-SR44-white or THERMOPAL®-SR24.

**THERMOPAL®-SP**

Mineral-based splatterdash repair mortar

PROPERTIES

- ▶ Hydraulically curing pre-blended mortar for improved adhesion between mineral-based plasters and load bearing mineral-based substrates.
- ▶ Fulfills the requirements of the WTA data sheet „Restoration plaster systems“.
- ▶ As a splatterdash coat beneath THERMOPAL® restoration plasters.

**THERMOPAL®-SR24**

Restoration plaster -
WTA with high levels of entrained air

PROPERTIES

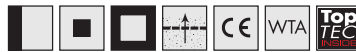
- ▶ With a large number of air pockets and a high salt storing capacity.
- ▶ For producing dry and water vapour permeable plaster surfaces, especially in the course of the restoration of damp and salt encrusted walls in interior and exterior areas.
- ▶ WTA approved system (WTA = International Association for the Science and Technology of Building Maintenance and Monument Preservation).

**THERMOPAL®-ULTRA**

Mineral based rapid setting restoration plaster

PROPERTIES

























- ▶ Rapid, reactive binding also under critical site conditions.
- ▶ Rapid hydrophobic build-up.
- ▶ Extremely low shrinkage.
- ▶ Sulfate resistant.
- ▶ High volume of entrained air.
- ▶ Vapour permeable.
- ▶ High salt storage capacity.
- ▶ Up to 30 mm in one application.
- ▶ Complies to WTA guidelines.



Notes

A large grid of small dots for taking notes, consisting of approximately 25 columns and 40 rows.

Explanation of icons

	For walls		1 component
	For ceilings		2 component
	For floors		Can additionally be modified with UNIFLEX-B
	For interior use		Tested according to German building regulations
	For exterior use		CE certified
	Waterproof		WTA certified
	UV resistant		EMICODE: EC1-Plus-R certified
	Root resistance		FAST TECHNOLOGY
	Vapour tight		TopTEC INSIDE
	Vapour permeable		Radon barrier
	For use beneath tiles		
	Ready to use		
	Suitable for underfloor heating		
	Through dried 24 h		

Contact

Phone +49-5231-953-00
Fax +49-5231-953-108

Additional information to your local contact partner can be found online under www.schomburg.com.

The SCHOMBURG Group develops, produces and markets high quality building product systems for

- Construction waterproofing
- Construction restoration
- Tiles/natural stone installation
- Screed installation
- Civil engineering
- Surface protection
- Concrete technology

SCHOMBURG is recognised for its development competency and is distinguished both nationally and internationally with over 75 years in the market. System based construction products from its own production plants are held in high esteem throughout the world.

Industry professionals value the level of service provided by the SCHOMBURG Group, along with our large range of high quality products.

In order to stay at the forefront of a continuously advancing market we are always investing in research and development of new and current products. This guarantees high quality products, which in turn leads to customer satisfaction.



SCHOMBURG GmbH & Co. KG
Aquafinstraße 2 - 8
D-32760 Detmold (Germany)
phone +49-5231-953-00
fax +49-5231-953-108
email export@schomburg.de
www.schomburg.com

