RESOPAL®

RESOPAL

SPASTYLING®

PROCESSING INSTRUCTIONS

RESOPAL SPASTYLING®

Wall boards and shower elements for bathroom refurbishment and new bathroom construction

RESOPAL SPASTYLING® | PROCESSING INSTRUCTIONS

THE NEW MAXIM FOR THE DESIGN OF WET AREAS

Water is a special element. Today, people seek relaxation, peace and recuperation near it. To achieve this, rooms dominated by water require a very special design. But it is not only the visual result that counts when designing bathrooms and wet areas. Rapid, simple and economical implementation as well as easy cleaning and hygiene in day-to-day life are just as high on the list of priorities for construction and refurbishment projects.

THE ALTERNATIVE

With RESOPAL SpaStyling Board and RESOPAL SpaStyling Shower Elements, we offer you a material system that meets these high requirements, creates design freedom and is a real alternative to traditional materials in bathroom refurbishment and new bathroom construction. Due to their large surface area, the lightweight RESOPAL SpaStyling Boards results in few joints on the wall and thus meet high standards in terms of appearance and hygiene. The RESOPAL SpaStyling Shower Elements allow the shower element to be embedded flush with the floor, which makes them ideal for use in accessible bathrooms.

ROBUST ORIGINAL RESOPAL HPL SURFACE

Thanks to the durable RESOPAL HPL surface, RESOPAL SpaStyling Boards/RESOPAL SpaStyling Shower Elements are scratch- and abrasion-resistant, impact-resistant, stain-resistant, highly lightfast, non porous, and therefore absolutely hygienic and easy to clean.

EASY, CLEAN INSTALLATION - MINIMAL DOWN-TIME

RESOPAL SpaStyling Boards can be worked and processed like a standard wood-based material and can be glued directly to the wall substrate in new buildings and refurbishment projects. The rapid, easy and clean installation ensures little dirt and minimal downtime in the rooms.

APPLICATION RECOMMENDATION

With its decorative and functional properties, RESOPAL SpaStyling is ideal for the interior finishing of wet (shower, bathtub, washbasin, WC etc.) and living areas. It is recommended to use RESOPAL SpaStyling only in interior areas with normal room climate (18 - 25°C and 50 - 65% relative humidity). The products are not suitable for use in sauna, steam bath or steam shower.

* Boards & Shower Elements are antibacterial.

Durable modular system

Antibacterial*

Suitable for wet rooms

Easy to clean

Robust

Can be processed like wood material

Easy and quick to install

Clean processing and installation

AT A GLANCE
CONTENTS

I.

PRODUCTS AND **PROPERTIES**

RESOPAL SPASTYLING® BOARD

With their decorative and functional properties, RESOPAL SpaStyling Boards are ideal for the interior finishing of wet areas (shower, bathtub, washbasin, WC etc.) and living areas and are not only visually pleaseing but create a feel good atmosphere. The walls covered extensively with the boards have very few joints and offer hardly any opportunity for dirt to accumulate. At the same time, the easy-care, homogeneous, hygienic surface is extremely efficient to clean.

MATERIAL DESCRIPTION AND COMPOSITION

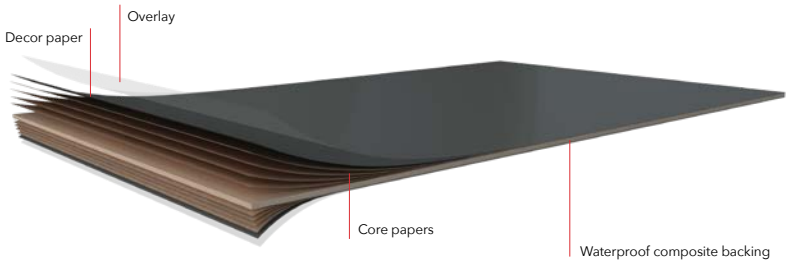
The RESOPAL SpaStyling Board consists of a waterproof composite substrate, which is covered on both sides with a 0.8 mm decorative high-pressure laminate (HPL).

RESOPAL-HPL are decorative high-pressure laminates (HPL) for interior applications and meet the requirements of the normative "Classification and specifications for laminates with a thickness of less than 2 mm, intended to be bonded to a substrate" laid down in EN 438-Part 3.

The properties according to EN 438-3 for the respective HPL type HPL Standard, Traceless Premium, specific decors (3606-EM Slate Wall Beige, 3602-EM Brick Wall Terracotta, 4014-EM Edgy Wood), Creative Selection are described in the table on page 7. Detailed information on the respective HPL product is also given in the product data sheets for RESOPAL HPL, RESOPAL HPL Traceless Premium and RESOPAL HPL Creative Selection.

The decorative high-pressure laminates are waterproof-bonded to the 6.2 mm thick and waterproof composite substrate. The composite substrate panels are characterised by high rigidity and toughness combined with a low weight per unit area. For applications in humid environments, this material retains good dimensional stability and is free from rotting and other decomposition processes.

PRODUCT STRUCTURE



TECHNICAL DATA

PROPERTY	TEST METHOD	UNIT (FULL SIZE)	RESOPAL SPASTYLING BOARD
Physical properties, dimensions and tolerances			
Thickness**		mm	7.8
Thickness Creative Selection		mm	8.0
Thickness tolerance	ISO 13894-1*	mm	± 0.50
Length and width	ISO 13894-1*	mm	± 5.0 (unmachined edges)
Edge straightness	ISO 13894-1*	mm/m	- (unmachined edges)
Squareness of edges	ISO 13894-1*	mm/m	- (unmachined edges)
Flatness	ISO 13894-1*	mm/m	≤ 3.0
Resistance to impact with a small diameter ball	DIN EN 438-2-20	N (min)	20
Resistance to impact with a large diameter ball (optional)	DIN EN 438-2-21	Drop height mm (min.) Indentation diameter mm (max.)	800 10
Fire behaviour	EN 13501-1	Building material class	E
Emission formaldehyde	EN 16516	Class	E1 (≤ 0.1 ppm)
Emission of volatile organic compounds (VOC)	EN ISO 16000-9	Emission class according to French regulation (Decree No. 2011-321)	A (scenario wall)

* according to ISO 13894-1 | ** HPL Standard,Traceless Premium, specific decors (3606-EM, 3602-EM, 4014-EM)

TECHNICAL PROPERTIES RESOPAL HPL*

PROPERTY	TEST METHOD EN 438-2: 2016	UNIT	HPL	TP	SPECIFIC DECORS 3606-EM | 3602-EM | 4014-EM	CREATIVE SELECTION
Physical properties and dimensions						
Density	EN ISO 1183-1	g/cm³	≥1.35			
Thickness	EN 438-2-5	mm	0.8			0.9
Dimensional stability at high temperature	IN 438-2-17	% longitudinal % transverse	≤0.55 ≤1.05			
Coefficient of thermal expansion	DIN 51045 +80°C/-20°C	1/K longitudinal 1/K transverse	0.9×10^{-5} 1.6×10^{-5}			
Mechanical properties						
Resistance to boiling water	EN 438-2-12	Grad(1) Glossy surfaces Other surfaces	 ≥3 ≥4	 ≥4	 ≥4	 ≥1* ≥1*
Susceptible to cracking under stress	EN 438-2-23	Grad(1)	≥4			
Surface properties						
Dirt, stains and similar surface defects Fibres, hairs and scratches.	EN 438-2-4	mm²/m² mm/m²	≤1.0 ≤10			
Resistance to surface abrasion	EN 438-2-10	Number of revolutions Initial abrasion point	≥150			
Resistance to water vapour	EN 438-2-14	Grade(1) Gloss surfaces Other surfaces	 ≥3 ≥4	 ≥4	 ≥4	 ≥1* ≥1*
Resistance to dry heat (160°C)	EN 438-2-16	Grade(1) Gloss surfaces Other surfaces	 ≥3 ≥4			
Resistance to damp heat (100°C)	EN 438-2-18	Grade(1) Gloss surfaces Other surfaces	 ≥3 ≥4			
Scratch resistance	EN 438-2-25	Grade(2) Gloss surfaces Other surfaces	≥2 ≥3	 ≥3	 ≥3	≥2 ≥3
Stain resistance	EN 438-2-26	Groups 1 and 2 Group 3	5 ≥4			
Light fastness (Xenon arc lamp)	EN 438-2-27	Grey scale	4 to 5			
Health and environmental						
Food safe/Declaration of no objection.	EN 1186, 13130, CEN/TS 14234	Contact with food	Yes			
Antibacterial effect[3]	JIS Z 280, ISO 22196	Reduction as a percentage	99.9			

* Properties with values below 3 do not meet the minimum requirements of EN 438. Extreme wetness may cause blistering on the surface. Please observe the recommendations for application and cleaning! | (1) Grade 5 - no visible change, Grade 4 - slight change in gloss and/or colour, only visible at certain viewing angles, Grade 3 - moderate change in gloss and/or colour, Grade 2 - significant change in gloss and/or colour or blistering on the surface, Grade 1 - delamination of the core layers | (2) to ≥90% continuous and clearly visible double circles as scratch marks, Grade 1 - 1N, Grade 2 - 2N, Grade 3 - 4N, Grade 4 - 6N, Grade 5 - > 6N | (3) Info sheet Biocide Regulation.EU No. 528 2012.

I.

PRODUCTS AND **PROPERTIES**

RESOPAL SPASTYLING® SHOWER ELEMENTS

For perfect integration into the room concept, floor-level RESOPAL SpaStyling Shower Elements are available in various decors and with slip-resistant surfaces. All-round sealing strips ensure that the connection to the wall and floor is impermeable to moisture. The flush-fitting of the elements into the floor creates the perfect conditions for designing accessible bathrooms. Installation that is not flush with the floor is also possible.

MATERIAL DESCRIPTION AND COMPOSITION

The RESOPAL SpaStyling Shower Elements consist of a hard foam made of expanded polystyrene, with a special waterproof coating on one side, a 3 mm thick RESOPAL Compact sheet and with a factory-sealed sealing collar, which has an overhang of 100 mm on all sides. This ensures a moisture-impermeable connection to the wall and floor. The RESOPAL SpaStyling Shower Elements are available with a centred or off-centred floor drain (DN 50) and a factory-sealed drain cover. The top part of the drain is covered with a decor-matching drain cover.

DIMENSIONS

RESOPAL SpaStyling Shower Elements are available in various standard formats up to a maximum size of 2000 mm × 1200 mm with central or off-centre drain and with slip resistance R10 A for surface FN, R9 A for surface EM.

TECHNICAL DATA

TECHNICAL PROPERTIES RIGID POLYSTYRENE FOAM

PROPERTIES	TEST METHOD/STANDARD	UNIT	VALUE
Compressive stress or compressive strength at 10% compression	DIN EN 826	N/mm²	≥0.80
Fire behaviour	DIN 4102	Building material class	B2
Fire behaviour	EN 13501-1	Euroclass	E
Tensile strength Associated modulus of elasticity	DIN EN 1607	N/mm²	0.50 12.00

TECHNICAL PROPERTIES RESOPAL SPASTYLING® SHOWER ELEMENT

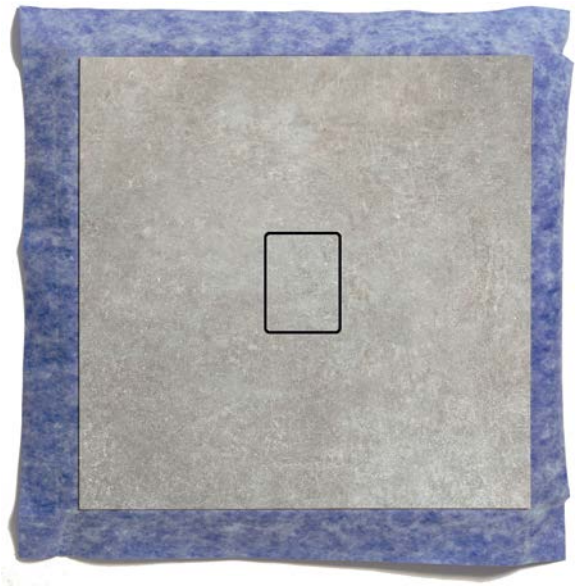
PROPERTIES	TEST METHOD/STANDARD	UNIT	VALUE
Tolerances:			
- Length und width		mm	± 3.0
- Thickness		mm	± 2.0
- Flatness (edge area)		mm/m	≤ 3.0
- Squareness		mm/m	≤ 1.5
- Edge straightness		mm/m	≤ 1.0
Minimum construction height with 45 mm element thickness			
Horizontal drain, DN 50		mm	121
Vertical drain, DN 50		mm	50
Drainage capacity in the system at 15 mm accumulation height			
horizontal, vertical	DIN EN 1253	l/min	Point drain 36, 60
Slope		%	1.5 - 2.5
Decor matching drain cover Point drain		mm	145 x 100
Slip resistance Surface FN	DIN 51130 DIN EN 16165		R10 A
Slip resistance Surface EM	DIN 51130 DIN EN 16165		R 9 A
Weight for a dimension of 1000 x 1000 x 45 mm		kg	11

VERSIONS

RESOPAL SpaStyling Shower Elements are available in two different versions:

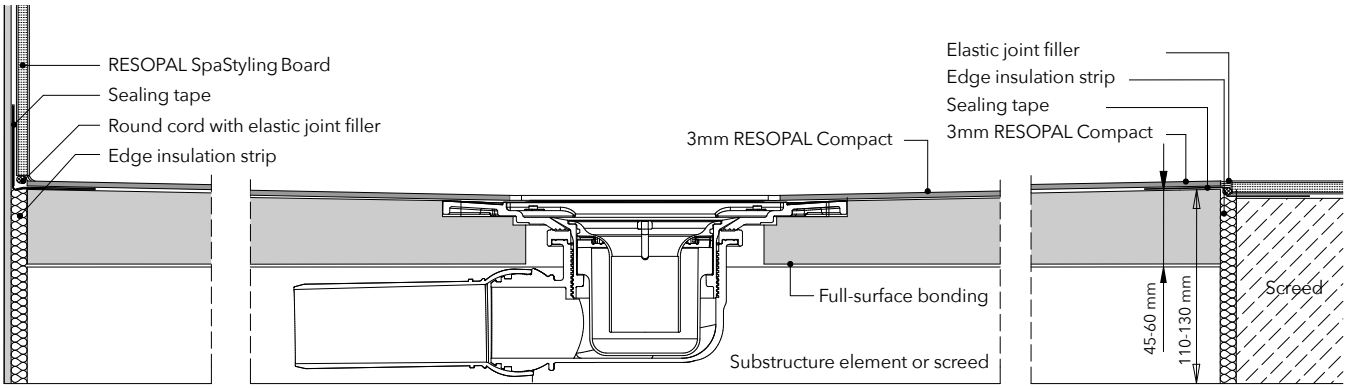
SPOT DRAIN CENTRED OR DECENTRED

With integrated slope of approx. 1.5 - 2.5% for horizontal or vertical drain. The distance of the off-centre drain is at least 350 mm from the centre of the drain to the edge of the shower element.



Central drain

Decentralised drain



Sectional drawing: RESOPAL SpaStyling Shower Element with point drain


PARSLEY
SEED

I.

PRODUCTS AND **PROPERTIES**

RESOPAL SPASTYLING® PROFILES

Everything for easy and rapid installation: RESOPAL SpaStyling offers a complete system for more safety and maximum comfort when redesigning the bathroom. Optimally coordinated components ensure that installation is also rapid and clean.

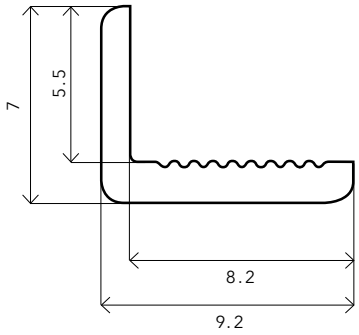
With the RESOPAL SpaStyling End, Connection and Corner Profiles, the SpaStyling® Boards can be connected and finished easily and without complication.

RESOPAL SPASTYLING® FINISHING PROFILE (L-PROFILE)

RESOPAL SpaStyling end profile (L-profile) is a profile made of aluminium with rounded edges. The profile is available in two colours.

Colours:
Aluminium silver gloss anodised matt and black powder-coated

Length 3050 mm

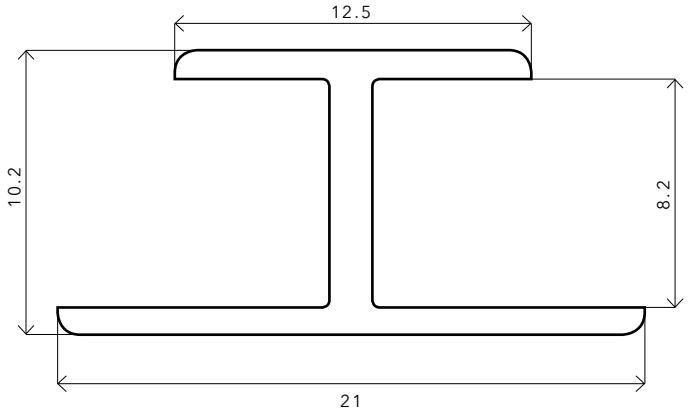


RESOPAL SPASTYLING® CONNECTING PROFILE (H-PROFILE)

RESOPAL SpaStyling Connection Profile (H-profile) is a profile made of aluminium with rounded edges. The profile is available in two colours.

Colours:
Aluminium silver gloss anodised matt and black powder-coated

Length 3050 mm

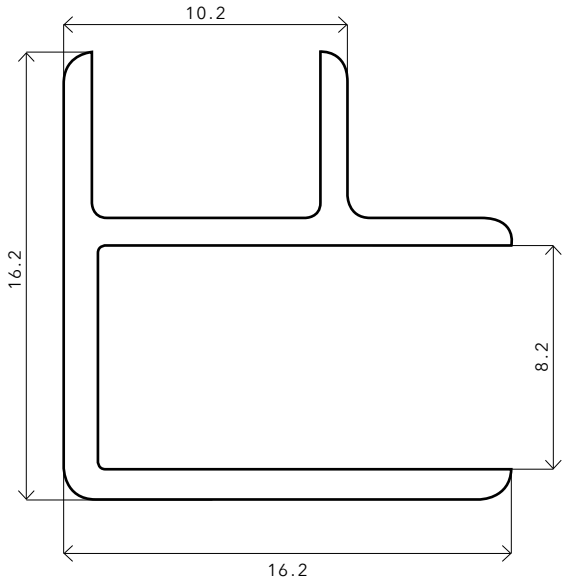


RESOPAL SPASTYLING® CORNER PROFILE (INSIDE AND OUTSIDE CORNER)

RESOPAL SpaStyling Corner Profile (inside and outside corner) is an aluminium profile with rounded edges. The profile is available in two colours.

Colours:
Aluminium silver gloss anodised matt and black powder-coated

Length 3050 mm



I.

PRODUCTS AND **PROPERTIES**

RESOPAL SPASTYLING® ADHESIVES

Everything for easy and rapid installation: RESOPAL SpaStyling offers a complete system for more safety and maximum comfort when redesigning the bathroom. Optimally coordinated components ensure that installation is also rapid and clean.

RESOPAL offers special wall and jointing adhesives that have been optimally matched to the application purpose.

RESOPAL SPASTYLING® JOINTING ADHESIVE

RESOPAL SpaStyling Jointing Adhesive is an elastic, transparent and low-shrinkage 1-component sealant and adhesive based on a MS hybrid polymer, moisture-hardening, neutrally cross-linking and low-odour. Furthermore, this adhesive is free of solvents, silicone, isocyanates and water.

PRODUCT ADVANTAGES

- simple processing
- easy to rework and clean
- free from solvents, isocyanates, silicones, phthalates
- wide adhesion spectrum
- low-odour
- compatible with paint
- permanently elastic from - 40°C to + 80 °C
- very good sealing properties

FIELD OF APPLICATION

RESOPAL SpaStyling Jointing Adhesive is the recommended adhesive for bonding RESOPAL SpaStyling Boards to each other (e.g. tongue and groove or mitre joints) or for joining RESOPAL SpaStyling Boards to profiles. The adhesive permanently bonds metal, plastic, polystyrene, XPS rigid foam, glass, ceramic, natural and artificial stone, concrete, plaster, wood-based materials.

CHEMICAL RESISTANCE

- good against water, aliphatic solvents, oils, greases, diluted inorganic acids and alkalis
- moderately resistant to esters, ketones and aromatics
- not resistant to concentrated acids and chlorinated hydrocarbons

PACKAGING UNIT AND COLOUR

- 290 ml cartridges
- Colour: transparent

TECHNICAL DATA

PROPERTIES	TEST METHOD/STANDARD	UNIT	VALUE
Shore A Hardness	DIN ISO 7619-1		40
Modulus at 100% elongation	DIN 53504 S2*	N/mm²	approx. 1.2
Elongation at break	DIN 53504 S2*	%	approx. 250
Tensile strength	DIN 53504 S2*	N/mm²	approx. 2.8
Consistency	DIN EN ISO 7390		Stability
Processing time		Minutes	≤ 5
Through-hardening after 24 h		mm	≥ 2.0
Through hardening after 48 h		mm	≥ 3.0
Density		g/cm³	1.08 ± 0.05
Volume change	DIN EN ISO 10563	%	≤ 4
Temperature resistance after hardening		°C	- 40°C to + 80 °C
Working temperature		°C	+ 5°C to + 40 °C

All measurements were carried out under normal conditions (23°C and 50% relative humidity). / *Data based on measurements after 7 days

OCCUPATIONAL AND ENVIRONMENTAL SAFETY

For information on occupational and environmental safety, as well as disposal, please refer to the Safety Data Sheet.

RESOPAL SPASTYLING® WALL ADHESIVE

RESOPAL SpaStyling Wall Adhesive is a rapid-hardening, elastic 1-component sealant and adhesive based on a MS hybrid polymer with accelerated initial adhesion (high tack), moisture hardening, neutral cross-linking and low odour. Furthermore, this adhesive is free of solvents, silicone and isocyanate RESOPAL SpaStyling Wall Adhesive is the recommended adhesive for bonding RESOPAL SpaStyling Board in strips on various wall substrates.

PRODUCT ADVANTAGES

- simple processing
- very broad adhesion spectrum
- very good ageing resistance
- not corrosive to surfaces
- low-odour
- compatible with paint
- very stable
- correctable
- very good sealing properties

FIELD OF APPLICATION

RESOPAL SpaStyling Wall Adhesive is the recommended adhesive for bonding RESOPAL SpaStyling Boards in strips on a wide variety of wall substrates.

RESOPAL SpaStyling Wall Adhesive is the recommended adhesive for bonding RESOPAL SpaStyling Boards in strips on a wide variety of wall substrates. The adhesive is well suited for bonding to the substrates tile, ceramic, stone, plasterboard and gypsum fibreboard, metal, concrete and wood-based materials. (Under)supporting the adhesive bond is usually no longer necessary, because the adhesive bonds and holds immediately.

CHEMICAL RESISTANCE

- good against water, aliphatic solvents, oils, greases, diluted inorganic acids and alkalis
- moderately resistant to esters, ketones and aromatics
- not resistant to concentrated acids and chlorinated hydrocarbons

PACKAGING UNIT AND COLOUR

- 290 ml cartridges
- Colour: grey

TECHNICAL DATA

PROPERTIES	TEST METHOD/STANDARD	UNIT	VALUE
Shore A Hardness	DIN ISO 7619-1		50
Modulus at 100% elongation	DIN 53504 S2*	N/mm^2	approx. 1.8
Elongation at break	DIN 53504 S2*	%	approx. 250
Tensile strength	DIN 53504 S2*	N/mm^2	approx. 2.9
Consistency			Stability
Processing time		Minutes	≤ 8
Through-hardening after 24 h		mm	≥ 3.0
Through hardening after 48 h		mm	≥ 4.5
Density		g/cm^3	1.48 ± 0.05
Volume change	DIN EN ISO 10563	%	≤ 4
Temperature resistance after hardening		°C	- 40°C to + 90 °C
Working temperature		°C	+ 5°C to + 40 °C

All measurements were carried out under normal conditions (23°C and 50% relative humidity). / * The data are based on measurements after 3 months.

OCCUPATIONAL AND ENVIRONMENTAL SAFETY

For information on occupational and environmental safety, as well as disposal, please refer to the Safety Data Sheet.

II.

STORAGE AND **TRANSPORT**

GENERAL INSTRUCTIONS

RESOPAL SpaStyling products must be protected against dirt, moisture and mechanical damage.

RESOPAL SPASTYLING® STORAGE

RESOPAL SpaStyling Board must be transported and stored flat, horizontally, fully flat and on a sufficiently large pallet. The panels must be stored in a closed storage area under moderate indoor conditions (10-30°C and 40-65% relative humidity) and protected against moisture and mechanical damage.

The top panel of each stack must be weighted down with a cover plate (coated). The protection applied to the pallet must be maintained each time panels are removed from the stack. If the panels are stored for a longer period of time, make sure they are stored flat, otherwise warping or deformation may occur. For vertical storage, we recommend an inclined position at 80 degrees with full-surface support and a counter-support on the floor to prevent slippage.

The outermost panel of each stack must be protected with a cover plate (coated).

RESOPAL SpaStyling Elements must be stored horizontally and flat on a level and sufficiently large support (e.g. pallet) in closed storage rooms under normal indoor climatic conditions (18 - 25°C and 50 - 65% relative humidity) and must not be loaded from above during storage.

RESOPAL SpaStyling adhesives must be stored in a cool (10 - 25°C) and dry place.

SHELF LIFE

PRODUCT	SHELF LIFE
RESOPAL SpaStyling Jointing Adhesive	15 months from date of production
RESOPAL SpaStyling Wall Adhesive	15 months from date of production

RESOPAL SpaStyling Shower Elements must be processed within 6 weeks of delivery.

RESOPAL SPASTYLING® TRANSPORT

RESOPAL SpaStyling Boards must be transported horizontally and flat on a level and sufficiently large base (e.g. pallet) or vertically on a glass trestle with a flat base and secured against slipping. The protective film used for transport must be removed simultaneously from both sides no later than six months after delivery.

RESOPAL SpaStyling Shower Elements must be transported horizontally and flat on a level and sufficiently large base (e.g. pallet) and secured against slipping. RESOPAL SpaStyling Shower Elements must not be loaded from above during transport.

In terms of transport regulations, RESOPAL SpaStyling® Boards and RESOPAL SpaStyling® Shower Elements are not classified as dangerous goods, so labelling is not necessary.

III.

INSTRUCTIONS FOR **PROCESSING**

RESOPAL SPASTYLING® BOARD

GENERAL

Check RESOPAL SpaStyling Board for damage and defects (including colour and surfaces) before processing/installation. Due to product-specific differences of the individual products (e.g. RESOPAL HPL, RESOPAL Compact etc.) slight visual and haptic differences may occur with the same surface and the same decor. These differences may also be noticeable or perceptible in different formats of the same product group.

For RESOPAL SpaStyling Boards with Creative Selection, minor colour deviations between the samples and the final product, as well as the individual production batches, may occur due to the manufacturing process. The surface structure between the collection goods and products of the RESOPAL Creative Selection may differ slightly in terms of appearance.

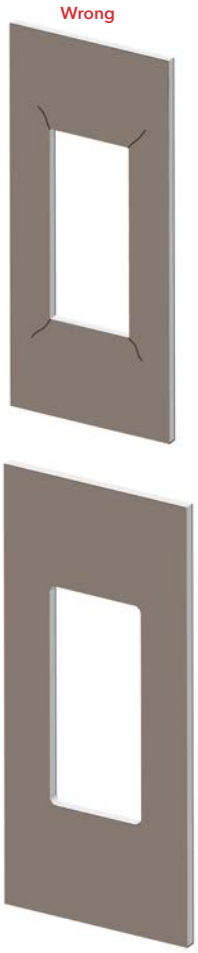
When processing RESOPAL SpaStyling Board, the usual safety regulations for dust removal and fire protection must be observed. Always wear protective gloves when handling RESOPAL SpaStyling Board due to possible sharp edges. Contact with dust does not cause any problems; however, there are a limited number of people who may be allergic to machining dusts of all kinds (and therefore also to SpaStyling Board dusts).

RESOPAL SpaStyling Boards can be processed in the same way as a standard composite element consisting of a wood-based material carrier and Resopal HPL on both sides. For this reason, the familiar processing machines for wood-based materials can be used for processing RESOPAL SpaStyling Boards. Furthermore, tools with carbide-tipped cutting edges have proven themselves for machining RESOPAL SpaStyling® boards. In addition to the general machining instructions for composite elements, additional instructions for the machining of RESOPAL SpaStyling® Boards are given below.

RESOPAL SPASTYLING® BOARD CUTTING TO SIZE

RESOPAL SpaStyling Boards are unedged and large-sized elements which are delivered in different dimensions. The required board formats are cut out of these. As the edges of RESOPAL SpaStyling Boards are not finished, a circumferential trimming of at least 20 mm is recommended.

When cutting RESOPAL SpaStyling Boards with specific decors (3606-EM Slate Wall Beige, 3602-EM Brick Wall Terracotta, 4014-EM Edgy Wood) and with Creative Selection, the following must also be taken into account:



RESOPAL SPASTYLING® BOARDS WITH SPECIFIC DECORS.

For technical production reasons, the decor of specific decors (3606-EM Slate Wall Beige, 3602-EM Brick Wall Terracotta, 4014-EM Edgy Wood) is not parallel to the board edge or not at right angles to the board format. When joining two or more panels of the same decor, it is therefore necessary to cut the panels additionally according to the decor course.

For a continuous surface with 2 or more RESOPAL SpaStyling Boards, the RESOPAL SpaStyling Boards are laid together at the longitudinal edges to be joined later before cutting. If this does not result in the desired decorative pattern across the butt joint, it may be necessary to cut one of the two RESOPAL SpaStyling Boards by 180°.

In the next step, the RESOPAL SpaStyling Boards are moved against each other at the panel joint until the best possible decorative pattern is achieved.

Now the cutting lines required for cutting the panels to length and width can be marked.

Furthermore, when cutting to size, it should be noted that the total width of the contiguous surface cannot be evenly distributed over the number of panels. Only the edge tiles of this area can be reduced in width.

RESOPAL SPASTYLING® BOARDS CREATIVE SELECTION

When cutting RESOPAL SpaStyling Boards of the RESOPAL® Creative Selection, a distinction must be made between decors "with repeat" and "without repeat".

The SpaStyling boards that have a decor "without pattern repeat" have a decor that extends over the entire board. Cutting can be carried out in the same way as described above for HPL and Traceless Premium (TP).

The SpaStyling Boards that have a decor "with repeat" have a décor that, due to the repetition, offers the possibility of reproducing the décor across the entire application width without interrupting the pattern. For these decors, an area for cutting has been integrated into the panel width in order to achieve a precise and optimised connection between the panels.

Due to manufacturing tolerances, a slight offset in continuous decor lines is possible even after a cut. Such tolerances do not constitute a complaint and must be accepted.

The RESOPAL® Creative Selection product data sheet provides further information on cutting and joining panels with decor "with repeat".

For cut-outs and internal recesses of RESOPAL SpaStyling Boards, the corners must always be rounded off (illustration). The inner radius should be as large as possible. For cut-outs with a size of up to 250 mm side length, these corners must have a minimum radius of 5 mm. For larger dimensions, this must be increased proportionally according to the side lengths.

RESOPAL SPASTYLING® BOARD CUTTING TO SIZE

CIRCULAR HAND SAWS

When cutting RESOPAL SpaStyling Boards with a hand-held circular saw, the use of a guide rail or a stop bar is recommended to produce a straight cut. The cut should be made from the back of the board to avoid tearing at the visible edge. On hand-held circular saws with plunge function, the cut edge quality can be influenced by adjusting the saw blade projection.

JIGSAWS

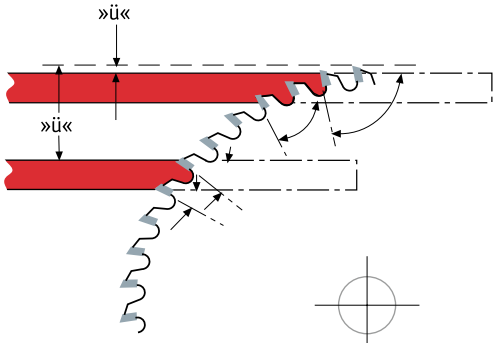
Shape or curve cuts of any kind and also notches and cut-outs in RESOPAL SpaStyling Boards are made with the jigsaw. The quality of the cut edge depends in particular on the choice of saw blade. We recommend using fine-toothed saw blades (for plastics) that are suitable for cutting HPL or directly coated boards. Furthermore, the orientation of the saw teeth should also be taken into account. Since the saw teeth of most saw blades are directed upwards, the cut should be made from the underside of the panel or a splinter guard should be used. This avoids tears at the visible edge. Particularly good cutting edges can be achieved with special saw blades (for plastics) that have been developed for abrasive or fibre-reinforced materials and also have a longer service life. To protect the visible decor side from scratching, a clean base (e.g. felt pad) should be used.

SIZING SAWS

The quality of the cut edges depends, among other things, on the height setting of the saw blade. The optimum height depends on the thickness of the RESOPAL SpaStyling Boards to be cut and the circular saw blade used. The best results can be achieved by using a scoring saw.

Furthermore, the quality of the cut edge depends on the following points:

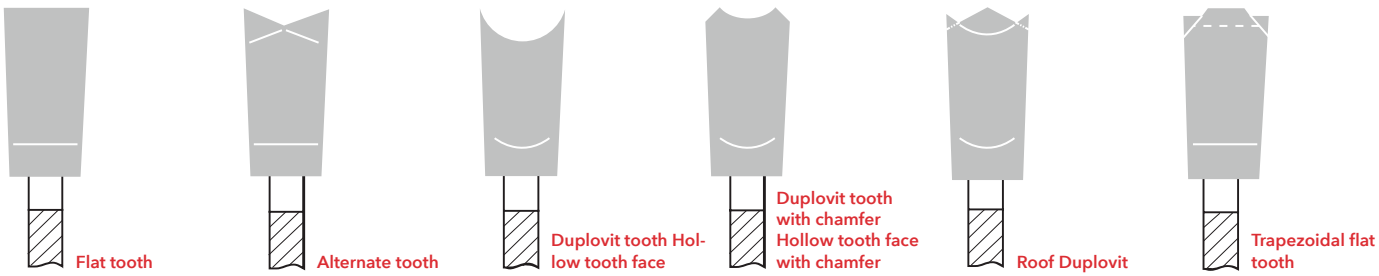
- Quality and condition of the machine and the circular saw blade.
- Tooth shape
- Number of teeth



Protrusion
As the overhang "Ü" increases, the upper cutting edge improves and the lower cutting edge deteriorates, or vice versa.

- Cutting speed
- Feed rate

COMMON TOOTH SHAPES



RESOPAL SPASTYLING® BOARD DRILLING

The penetration speed of the drill must be chosen in such a way that the Resopal HPL is not damaged. The cutting speed for high-speed steel drills is approx. 0.8 m/s, for carbide drills up to 1.6 m/s. A feed rate of 0.02 to 0.05 mm/rev is considered favourable, i.e. at 1000 revolutions, the drill penetrates between 20 mm and 50 mm per minute. If a hardwood or laminate backing is used, the material can be prevented from being thrown up at the exit of the drill. Even better results are achieved in series production with drill jigs that have drill bushes on both sides and allow the part to be drilled to be clamped firmly. For countersinking, speeds that are half as low are appropriate.

TWIST DRILL

Drills for plastics are best suited for drilling RESOPAL SpaStyling Boards; they are twist drills with an acute angle of about 60° to 80° instead of 120° as with normal metal drills; they also have a large pitch (steep twist) with a large chip space (wide grooves). HS drills (for hand-held machines) and carbide drills (for machines with mechanical feed) are recommended.

CYLINDER HEAD DRILLS

If holes with a larger diameter are required in RESOPAL SpaStyling Boards, cylinder head drills are suitable.

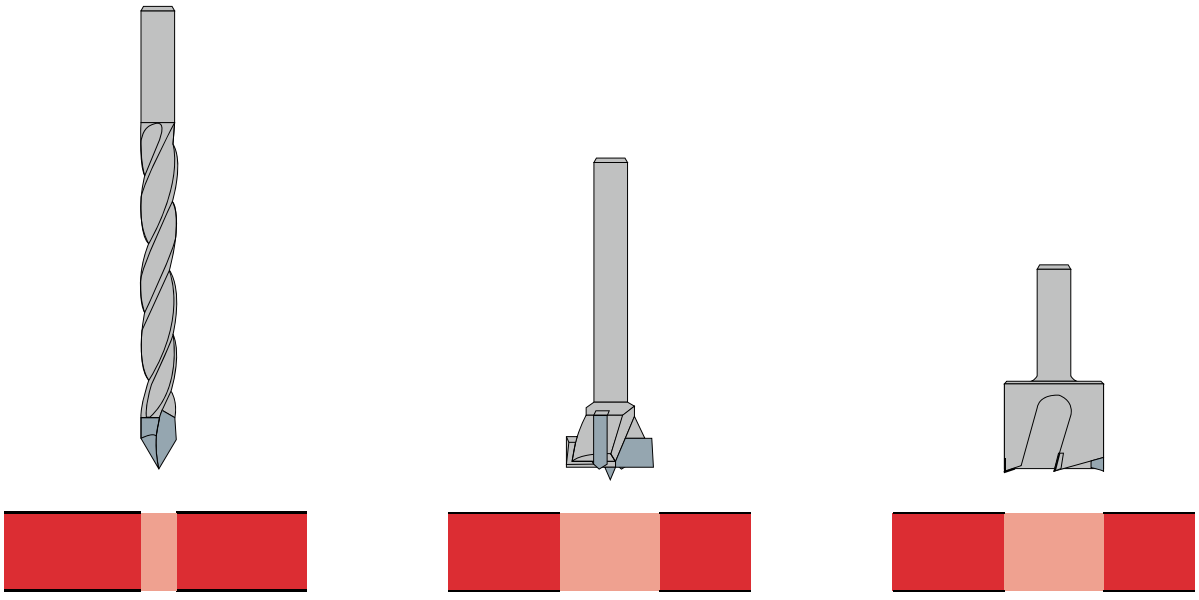
CIRCLE CUTTER/CAN DRILL

Circular cutters or can drills with guide pins are used. For even larger diameters, so-called adjustable circle cutters with guide pins. With the latter, the hole should be cut from both sides if possible. Alternatively, larger recesses can be made with a router using a template.

RESOPAL SPASTYLING® BOARD EDGE PROCESSING

MANUAL EDGE PROCESSING WITH FILE OR SANDPAPER

The edges of cut parts made of RESOPAL SpaStyling Boards should always be slightly broken so that they are no longer sharp-edged. Fine files or sandpaper (grit 100-150) can be used for this processing step.



Twist drill | Cylinder head drills | Circle cutter/can drill

MANUAL EDGE PROCESSING WITH A HAND ROUTER

Hand routers are mainly used for flush routing of protruding panel edges, HPL edges or for making large cut-outs. To protect the surface, the contact surface of the hand router should be covered with a non-abrasive material. Dirt particles and routing chips must always be carefully removed.

- Milling tool diameter: approx. 10 - 25 mm
- Speed: 20,000 rpm
- Cutting speed: 10 - 25 m/s

Cutting speed and feed rate must be adjusted in such a way that the chips do not melt when cutting the substrate material.

Single- or double-edged carbide-tipped milling cutters are recommended, which are also available with indexable inserts for larger diameters. For better tool utilisation, height-adjustable milling tools with axially parallel cutting edges are preferable. Afterwards, the edges will have to be broken. The plate projection should not be chosen larger than absolutely necessary (2 - 3 mm) to avoid putting unnecessary stress on the tool.

For the connection of RESOPAL SpaStyling Boards with groove and a loose tongue, a groove (3 mm wide, 7 - 10 mm deep) is cut into the narrow surface with a groove cutter. Furthermore, form or curve cuts of any kind and also cut-outs or breakthroughs in the RESOPAL SpaStyling Boards can be made with the hand router and an end mill. To protect the surface, the contact surface of the hand router must be covered with a non-abrasive material. Dirt particles and milling chips must always be carefully vacuumed off.

MACHINE EDGE PROCESSING

On the bench router, milling and cutter heads with replaceable carbide blades and indexable inserts have proved their worth.

Cylindrical tools are used:

- with axially parallel cutting edges
- with inclined cutting edges on one side
- with inclined cutting edges on both sides

When machining RESOPAL SpaStyling Boards, a cutting speed Vc 50-70 m/s and a tooth feed fz 0.5-0.8 mm are recommended. The tool life can vary considerably depending on the tool type and shape as well as the required cutting quality. For the machining of RESOPAL SpaStyling Boards, the use of tools with diamond cutting edges is advantageous.

RESOPAL SPASTYLING® BOARD EDGE COATING

EDGE COATING (NARROW SURFACE COATING)

The narrow surfaces of RESOPAL SpaStyling Boards can be coated manually as well as mechanically (with edge banding machines). The selection of the individual edge types (HPL, PP, ABS, melamine resin or also an aluminium angle etc.) depends on the application purpose of the edge, the in-house working methods and the available machine equipment. Before processing, both the edge strips and RESOPAL SpaStyling Boards must be stored at 18 to 25°C and 50 to 65% relative humidity.

Special adhesives are available for bonding or gluing edge strip materials, which are commonly used in the furniture industry and in crafts. For this purpose, the processing guidelines of the adhesive manufacturers must be observed and enquiries must always be made with both the edge strip manufacturer and the adhesive manufacturer. It is recommended to always carry out a test bond beforehand.

MANUAL EDGE COATING (NARROW SURFACE COATING)

The narrow surface of the RESOPAL SpaStyling Boards can be coated manually like a usual composite element consisting of a wood-based material carrier and

Resopal HPL on both sides. For example, melamine resin edges can be ironed on with hot-melt adhesive using an iron (not recommended for direct contact with water) and HPL edge strips can be glued on using pneumatic or mechanical clamping devices and D4 PVAc or PUR adhesives. Furthermore, commercially available wall end profiles or also aluminium profiles can be used for narrow surface coating. These can be bonded with an MS hybrid polymer adhesive, for example.

EDGE COATING (NARROW SURFACE COATING) BY MACHINE

For the narrow-surface coating of RESOPAL SpaStyling Boards with edge banding machines, the use of hot-melt adhesives (reactive hot-melt adhesives based on polyurethane) is recommended. The use of a primer on the narrow surface of RESOPAL SpaStyling Boards is not necessary.

The quality of the bond is significantly influenced by the following factors:

- Selection of the adhesive system and the machine system
- Feed speed of the edge banding machine
- Roller pressure

The guidelines or processing instructions of the machine and adhesive manufacturers must be observed.

IV.

GENERAL INSTRUCTIONS

SEALING (TIGHT LAYER)

GENERAL

„(...) According to the building regulations of the respective countries, structures and components must be arranged in such a way that no hazards or unacceptable nuisances are caused by water, moisture (...) or other chemical, physical or biological influences. Structural components in buildings exposed to moisture, e.g. in bathrooms, showers, on terraces, balconies, commercially used kitchens etc., must therefore be protected against moisture penetration. This does not include recreation and utility rooms in residential buildings such as:

- Guest WCs
- Utility rooms
- Kitchens with normal household use, unless there are floor drains in these rooms (...) "*.

Wall and floor surfaces in bathrooms that are exposed to water can be covered with wall coverings (e.g. tiles, glass, Resopal wall coverings). Although the wall coverings are moisture-resistant and water-repellent, it is necessary to apply an additional sealant under the wall covering due to the formation of the joints and connections on surfaces directly exposed to water.

This chapter of the processing brochure describes the processing of bonded waterproofing in interaction with RESOPAL SpaStyling Boards in interior areas, taking into account defined water stress classes.

The information given here on composite waterproofing does not claim to be complete, but is intended to provide introductory information on composite waterproofing. For more detailed information, it is recommended to refer to the "Bonded waterproofing (AIV) - Instructions for the implementation of bonded waterproofing with tile and slab claddings and coverings for interior areas" data sheet issued by the Central Association of the German Building Trade (Zentralverband Deutsches Baugewerbe ZDB). The processing of RESOPAL SpaStyling Boards is based on this data sheet. The "waterproofing in combination" described in this data sheet has proven itself in practical application and is regulated in DIN 18534-1, -3, -5, -6, which also describes the requirements for the products.

WATER EXPOSURE CLASSES

"(...) The water exposure according to intensity and type is the essential criterion for defining the water exposure classes. The planner must estimate the expected water exposure on the respective surfaces and assign them to classes W0-I to W3-I of Table 1. (…)"

"(...) In water exposure classes W0-I and W1-I, moisture-sensitive building materials may be used for the waterproofing substrate (e.g. building materials containing gypsum). In classes W2-I and W3-I, only moisture-insensitive building materials may be used. The determination of the water exposure class is a planning service. In consultation with the building owner, the planner determines the planned use of the room or the individual areas and, based on this, determines the water exposure class. (…)"*

THE FOLLOWING TABLE SHOWS APPLICATION EXAMPLES WHICH ARE ONLY INTENDED TO SERVE AS EXAMPLES:

WATER EXPOSURE CLASS	WATER EXPOSURE		APPLICATION EXAMPLES
WO-I	low	Surfaces not frequently exposed to splash water	• Areas of wall surfaces above washbasins in bathrooms and sinks in domestic kitchens • Areas of floor surfaces in domestic areas without drainage, e.g. in kitchens, utility rooms, guest WCs
W1-I	moderate	Surfaces with frequent exposure to splash water or not frequent exposure to service water without intensification by accumulating water	• Wall surfaces above bathtubs and in showers in bathrooms • Floor surfaces in domestic areas with drainage • Floor surfaces in bathrooms without/with drainage without high water exposure from the shower area
W2-I	high	Surfaces with frequent exposure to splash and/or service water, especially on the floor occasionally intensified by accumulating water	• Wall surfaces of showers in sports/commercial facilities • Floor surfaces with drains and/or gutters • Floor surfaces in rooms with showers at floor level • Wall and floor surfaces of sports/commercial facilities
W3-I	Very high	Surfaces with very frequent or long-lasting exposure to spray and/or service water and/or water from intensive cleaning processes, intensified by accumulating water	• Surfaces in the area of swimming pool surrounds • Surfaces of showers and shower facilities in sports/commercial facilities • Surfaces in commercial facilities (commercial kitchens, laundries, breweries etc.)

RESOPAL SpaStyling products can only be applied in the areas of water exposure classes W0-I to W2-I.

In addition, the respective application recommendations of the products must always be observed.

Based on the previously given information, the following points should be considered during application:

- Do not use gypsum-containing building materials in the floor area of floor-level shower surfaces in domestic bathrooms or hotel bathrooms
- as a rule, floor surfaces in rooms with flush-to-floor showers are to be assigned to W2-I
- as a rule, wall and floor surfaces of showers in sports/commercial facilities are to be assigned at least to water exposure class W2-I
- as a rule, floor surfaces with scheduled service water or splash water are to be assigned to water exposure class W2-I.

TYPICAL APPLICATION EXAMPLES WITH THE ALLOCATION OF THE CORRESPONDING WATER EXPOSURE CLASS:

DOMESTIC BATHROOMS

APPLICATION EXAMPLES	WATER EXPOSURE CLASS
Wall surfaces in showers and above bathtubs	W1-I
Wall surfaces outside shower areas	W0-I or W1-I
Floor surfaces with floor-level showers/floor drains	W2-I
Floor surfaces without high water exposure	W1-I to W2-I

SPORTS/COMMERCIAL FACILITIES

APPLICATION EXAMPLES	WATER EXPOSURE CLASS
Wall surfaces in showers	W3-I or W2-I
Floor surfaces in row showers	W3-I or W2-I
Pool surrounds in swimming pools	W3-I
Production facilities, individually depending on water exposure	W0-I to W3-I

In the above examples, chemical, mechanical and thermal impacts were not taken into account in the classifications. If necessary, these would need to be taken into account additionally.

* "Bonded Waterproofing (AIV) - Notes for the implementation of bonded waterproofing with tile claddings and coverings for interior use" data sheet version: August 2019 Publisher: PROFESSIONAL ASSOCIATION FOR TILES AND NATURAL STONE IN THE CENTRAL ASSOCIATION OF THE GERMAN BUILDING TRADE E.V., BERLIN

IMPLEMENTATION OF WATERPROOFING

REQUIREMENTS FOR THE SUBSTRATE

In the "Waterproofing in combination (AIV) - Notes for the implementation of waterproofing in combination with claddings and coverings made of tiles and slabs for interior use" data from the Central Association of the German Building Trade (Zentralverband Deutsches Baugewerbe ZDB), the following properties are recommended for the substrate: "The surface of the substrate must be sufficiently level, load-bearing and free of continuous cracks. It must have a largely closed, uniform texture appropriate to its type and sufficient strength. It must be free of substances that impair the adhesion of the waterproofing (e.g. separating agents, loose constituents, dust, sanding, binder accumulation, efflorescence, contamination)".

The dimensional accuracy and position of the substrate should correspond to the finished cladding surface. Larger dimensional inaccuracies must be compensated for prior to the waterproofing measure. DIN 18202 applies to the assessment of evenness. Materials for levelling layers must be matched to the substrate and the waterproofing material and adhere well to the substrate. Moisture-sensitive substrates such as calcium sulphate-bonded screeds or prefabricated screeds made of gypsum boards or gypsum fibre boards where a floor drain is provided, as well as wood and wood-based materials are not suitable as substrates for this type of waterproofing. The substrate may only deform to a limited extent after the waterproofing has been applied. In the case of substrates that shrink and creep, the waterproofing and covering or cladding materials must be applied as late as possible.

As a guideline, on substrates made of concrete according to DIN 1045 and masonry made of binder-bonded bricks according to DIN 1053, the waterproofing and covering or cladding materials may only be applied approx. six months after production. In the case of substrates where the above changes in shape have largely been completed, the specified time period may be shorter.

Cracks in substrates are to be limited to a maximum crack width change of 0.2 mm, unless corresponding evidence for a higher crack width bridging has been provided for the waterproofing product. Compliance with the maximum crack width change must be ensured by design. Plasters, gypsum boards and gypsum fibre boards must be dry, screeds should be dry and cement screeds at least 28 days old. For screeds on insulation and separating layers, the moisture content must be determined with the CM device. For

- heated calcium sulphate-bonded screeds, it may not exceed 0.3 CM%
- unheated calcium sulphate-bonded screeds, it may not exceed 0.5 CM%
- cement-based screeds, it may not exceed 2.0 CM%
- rapid screeds, according to manufacturer's instructions

.

APPLICATION OF BONDED WATERPROOFING

When processing the waterproofing, always follow the processing instructions of the respective manufacturer! Composite waterproofing is applied by brushing, rolling or trowelling and can be reinforced with fleece, fabric or foil inserts. The application must be free from defects, even and in accordance with the specifications for the minimum thickness.

The individual work steps are shown on the following page (figures 1 - 8):

1. Checking the substrate (see previous text section "Requirements for the substrate").
2. Full-surface application of a primer (adhesion and protective primer) Figure 1
3. Connections to adjacent building components and penetrations require special care when sealing. Sealing tapes and sealing collars are used here. Figures 2 - 3
   Embed sealing tapes for inside and outside corners in the still damp sealing foil and repaint directly. Figure 4
   Embed sealing sleeves for pipe penetrations in the still moist sealing film and apply another coat directly. Figure 5
4. Apply two full and even coats of sealing film (second coat according to manufacturer's instructions at the earliest). Figure 7

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

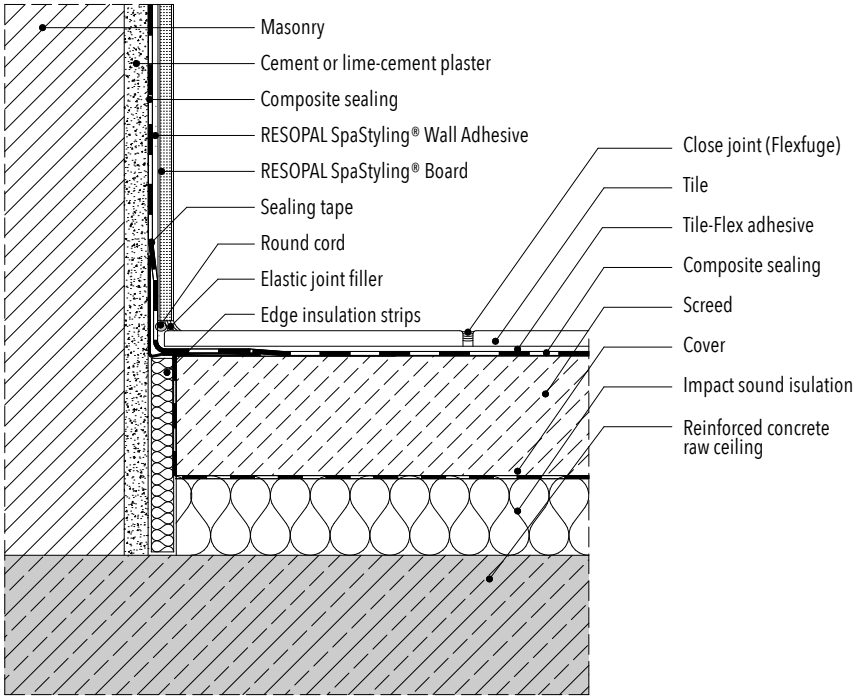
Fig. 6

Fig. 7

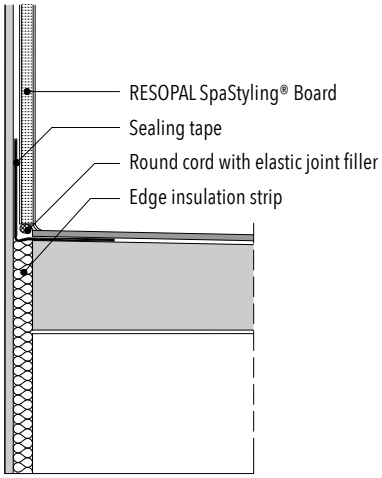
Fig. 8

IMPLEMENTATION OF WATERPROOFING

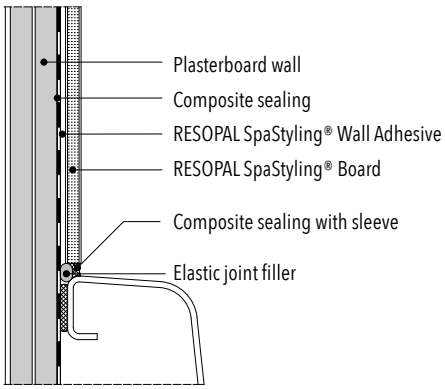
DETAILED SOLUTIONS WITH COMPOSITE WATERPROOFING



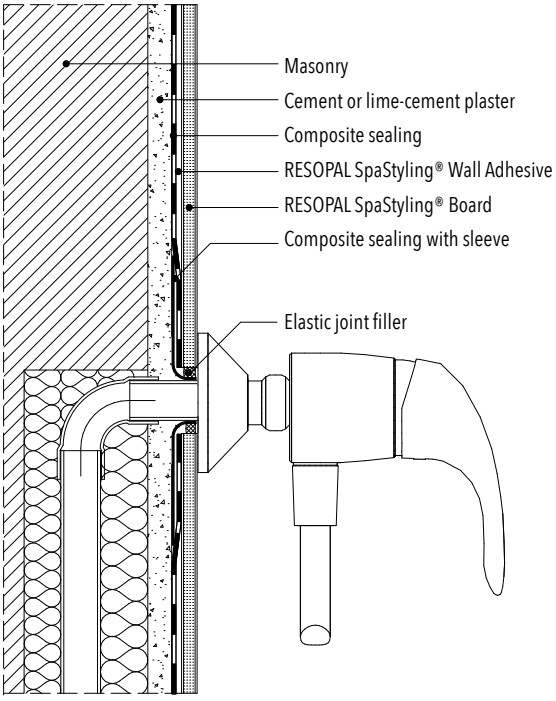
Wall-floor connection with RESOPAL SpaStyling Board and tile



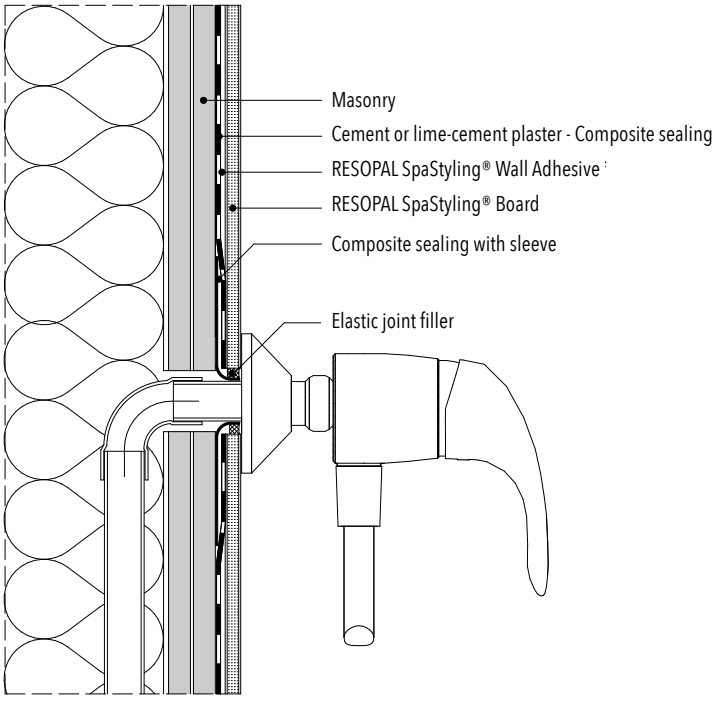
Wall connection RESOPAL SpaStyling Board to RESOPAL SpaStyling Shower Element



Wall connection RESOPAL SpaStyling Board to a bathtub



Penetration (masonry)



Penetration (drywall)

IMPLEMENTATION OF WATERPROOFING

WATERPROOFING IN COMBINATION WITH RESOPAL SPASTYLING® BOARDS AND RESOPAL SPASTYLING® WALL ADHESIVE

Based on internal tests, the "Poresta BFA sealing compound (polymer dispersion based sealing/www.poresta.com)" product can be recommended in combination with the RESOPAL SpaStyling Wall Adhesive product on the following building substrates indoors (including damp rooms):

PLASTERED MASONRY

- The substrate must be even, load-bearing, dry, dust-free and non-sandy.
- If necessary, the substrate must be primed.

PLANKED STUD WALLS

- RESOPAL SpaStyling Boards cannot take over any static task
- The substrate must be vibration-free and resistant to bending.

The following products can be recommended as suitable primers:

- Schönox KH
- Schönox KH fixed*

TILED WALLS (FULL SURFACE/PARTIAL SURFACE)

- Existing tile coverings may have to be roughened or primed.
- The height offset to the tile surface must be evened out with suitable products.

The following products can be recommended as suitable primers:

- Schönox SHP*

The recommendations for waterproofing in combination with RESOPAL SpaStyling Boards and RESOPAL SpaStyling Wall Adhesive are based on internal application tests. Due to the large number of different substrates, an adhesion test is always recommended in advance.

Furthermore, the processing guidelines and recommendations of the respective manufacturers must also be observed.

* Further information at www.schonox.com

SLIP RESISTANCE

ANTI-SLIP PROPERTY AND STEP SECURITY

A distinction is made between slip-resistant coverings in publicly accessible areas and those that are walked on barefoot or with footwear. Private areas, however, are not covered by the legal regulations for occupational safety. Nevertheless, in one's own interest, stability and slip resistance should not be ignored there.

FLOOR COVERINGS IN WORKROOMS AND WORK AREAS WITH SLIP HAZARDS

SCOPE
Floors in workrooms and work areas with slip hazards

REGULATIONS
DGUV REGULATION 108-003: Floors in workrooms and work areas with slip hazards; 10/2003

TEST METHOD
DIN EN 16165 - Determination of slip resistance of floors Annex B - Test by walking on with shoes.

RATING
Rating group R9 to R13 (high requirement)

APPLICATION EXAMPLES

GROUP	APPLICATION EXAMPLES
Group R9	Entrance areas (inside); break rooms; dining rooms, canteens; sickrooms incl. corridors; doctors' surgeries; pharmacies; hairdressers' salons; classrooms in schools and kindergartens; banks.
Group R10	Toilets, changing rooms and washrooms; kitchenettes, ward kitchens; sanitary rooms, ward bathrooms; toilets, washrooms and kitchens in schools and kindergartens

CLASSIFICATION OF SURFACE FN (FINE LINE) - R10

CLASSIFICATION OF SURFACE EM - R9

FLOOR COVERINGS FOR WET BAREFOOT AREAS

SCOPE
Barefoot areas in swimming pools and pre-cleaning rooms of sports facilities

REGULATIONS
DGUV Information 207-006: Floor coverings for wet barefoot areas; 05/2020.

TEST METHOD
DIN EN 16165 – Determination of the slip resistance of floors; Annex A: Test for barefoot walking on an inclined plane

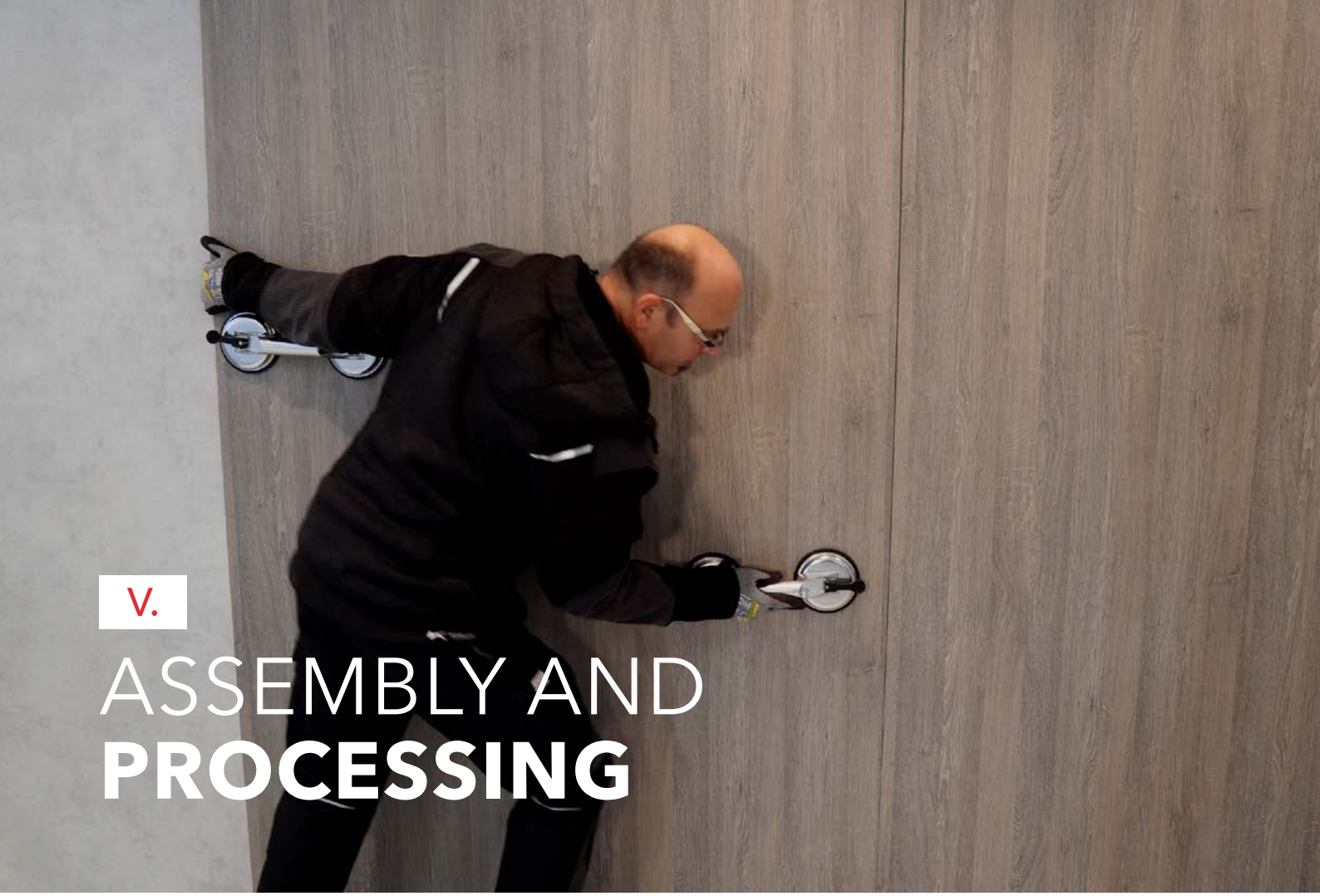
RATING
Rating group A to C (high requirement)

APPLICATION EXAMPLES

GROUP	APPLICATION EXAMPLES
Group A	Barefoot corridors (largely dry); individual and collective changing rooms; sauna and rest areas (largely dry)
Group B	Barefoot corridors, as far as these are not assigned to group A; shower rooms; pool corridors; sauna and rest areas, as far as these are not assigned to group A.
Group C	Stairs leading into the water, unless they are assigned to group B; walk-through pools, sloping pool edges.

CLASSIFICATION OF SURFACE FN (FINE LINE) - A

CLASSIFICATION OF SURFACE EM - A



V.

ASSEMBLY AND **PROCESSING**

RESOPAL SPASTYLING® BOARDS

GENERAL INSTRUCTIONS

RESOPAL SpaStyling Boards must be acclimatised for at least two days (in winter approx. three to four days) in the rooms to be installed, lying on a flat surface under the following climatic conditions before installation. A normal room climate should prevail (temperature 18 to 25°C; relative humidity 50 to 65%). These climatic conditions should also be maintained during subsequent use of the rooms.

For the installation of RESOPAL SpaStyling Boards, the relevant national standards and guidelines, the processing instructions for RESOPAL SpaStyling Boards and the recognised rules of the trade apply.

RESOPAL SpaStyling Boards that are to be bonded to the wall substrates must be clean, dry and free of dust, oil and grease on the adhesive side. In addition, the processing instructions of the adhesive manufacturer should always be observed for possible further pre-treatments.

RESOPAL SpaStyling Boards are not suitable for use in saunas, steam baths or steam showers.

WALL SUBSTRATE

RESOPAL SpaStyling Boards can be applied on various types of plaster (gypsum and cement plaster), on dry construction substrates (plasterboard and gypsum fibreboard), on various wood-based materials (laying chipboard, OSB boards etc.), on plasterboard and gypsum fibreboard. CAUTION: Wood-based materials are not permitted for applications as substrates for bonded waterproofing) and on existing stone and ceramic surfaces (before laying - carry out basic cleaning) can be bonded both over the entire surface and in strips.

The wall substrate must be dry, clean, load-bearing and even (max. ± 5 mm height difference per 2 m) in accordance with the recognised rules of the trade and the state of the art.

In the case of substrates to which a bonded sealant has been applied in advance, no further pre-treatment is necessary; in this case, bonded sealant and adhesive should be matched to each other. Loose and absorbent substrates that do not require a bonded waterproofing must be consolidated with a primer/undercoat (such as Schönox KH fix) if necessary. Poresta BFA waterproofing from poresta systems GmbH is recommended as a bonded waterproofing.

If larger connected areas are required, then the RESOPAL SpaStyling Boards can be connected by joining the RESOPAL SpaStyling Boards with a self-milled tongue and groove, leaving only a hairline joint between the two connected RESOPAL SpaStyling Boards. This tongue and groove connection must be waterproof.

Furthermore, larger connected areas can be created by using the RESOPAL SpaStyling connection profile (H-profile). RESOPAL SpaStyling Boards are connected by this profile. The connection between profile and RESOPAL SpaStyling Boards must be waterproof. Larger thickness tolerances of RESOPAL SpaStyling Board with RESOPAL HPL Traceless Premium and with RESOPAL HPL Creative Selection can lead in individual cases to the opening being too small for the RESOPAL SpaStyling profiles (connecting and corner profile). In these cases we recommend a conventional connection without the use of RESOPAL SpaStyling profiles.

RESOPAL SPASTYLING® BOARD MOUNTING BOARDS WITH TONGUE AND GROOVE JOINT

Please note: The illustrations mentioned below can be found on page 37.

RESOPAL SpaStyling Boards are unedged and large-sized elements which are delivered in different sizes. The required board formats are cut out of these. As the edges of RESOPAL SpaStyling Boards are not finished, a circumferential trimming of at least 20 mm is recommended.

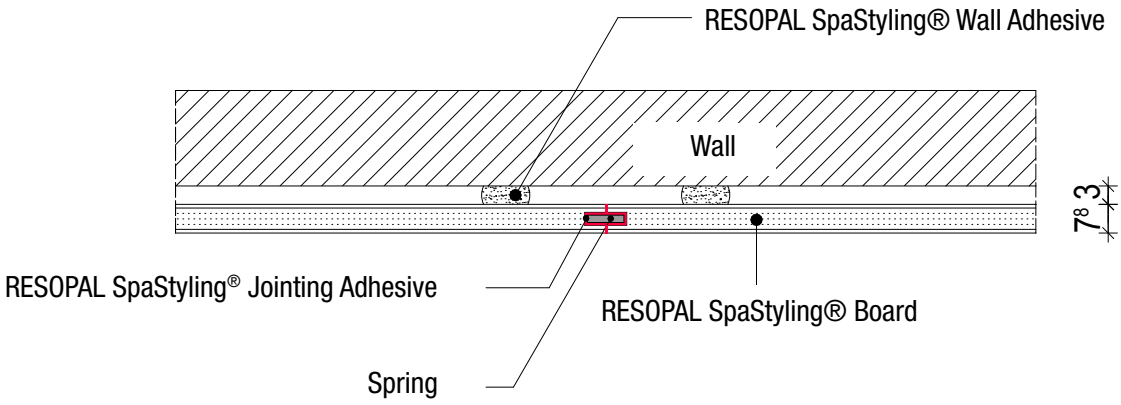
When cutting RESOPAL SpaStyling boards with specific decors (3606-EM Slate Wall Beige, 3602-EM Brick Wall Terracotta, 4014-EM Edgy Wood) and Creative Selection, the notes on page 21 must also be taken into account.

If larger contiguous surfaces are required, the RESOPAL SpaStyling Boards can be joined with a groove and a loose tongue so that only a hairline joint remains between the individual RESOPAL SpaStyling Boards.

To do this, a groove (3 mm wide, 7 to 10 mm deep) must be cut into the narrow surface of the RESOPAL SpaStyling Boards with a hand router and then carefully cleaned of dirt particles and milling chips. The use of a disc groove cutter with a thrust ring is ideal. To ensure that this joint is watertight later on, it must be bonded with RESOPAL SpaStyling Jointing Adhesive. Figure 1

For this purpose, the adhesive is placed in each groove (on the groove cheeks) of the two RESOPAL SpaStyling Boards to be joined. Apply the adhesive precisely in the grooves and leave enough air for the tongue so that the adhesive or the tongue does not hinder the joining. The tongue is inserted into the groove of one of the two RESOPAL SpaStyling Boards. Before both board parts are joined together, additional adhesive is applied to the tongue in order to ensure the tightness of the joint. Adhesive that has escaped from the groove or adhesive residue on the surface must be removed immediately.

Before RESOPAL SpaStyling Boards are bonded to the wall substrate, all processing steps (cutting to size, cut-outs, drilling, groove milling etc.) must be completed. Only then can bonding be started.



RESOPAL SPASTYLING® BOARD MONTAGE BOARDS WITH TONGUE AND GROOVE JOINT

1. Dry-fit and test prefabricated RESOPAL SpaStyling Boards first (without adhesive). Please ensure that a distance of at least 3 mm is maintained from all fixed components (floor, ceiling, wall etc.). Figure 2
2. RESOPAL SpaStyling Boards can be applied over the entire surface or in strips. When applying the RESOPAL SpaStyling Wall Adhesive to the wall substrate, the manufacturer's instructions must be observed. When applying the adhesive in strips, make sure that the distance between the adhesive beads does not exceed 250 mm. Furthermore, it must be noted that the RESOPAL SpaStyling Boards are not hollow in the areas of the wall to which objects (washbasin, WC etc.) will later be attached. Therefore, in these areas, it is recommended to apply the adhesive over the entire surface, to use very small gaps between the adhesive beads or to back the adhesive beads with a 3 mm thick material (e.g. Resopal). The board joint can additionally be fixed with an adhesive tape until the adhesive has cured. Figure 3
3. Place RESOPAL SpaStyling Board on spacers, align and press into the adhesive bed. Figure 5
4. The following RESOPAL SpaStyling Boards are connected to the previous RESOPAL SpaStyling Board with a self-milled tongue and groove joint as described above. After applying the RESOPAL SpaStyling joint adhesive in the grooves and inserting the tongue, join the next RESOPAL SpaStyling Foard with the previous one and then press it into the adhesive bed on the wall. Then check the evenness of the butt joint and correct it if necessary by pressing on the elevations. Figure 6
5. After all RESOPAL SpaStyling Boards have been installed, all movement joints that have the task of compensating for changes in shape, as well as connections to shower trays or bathtubs, must be sealed with a silicone compound. Figure 7

Fig. 1

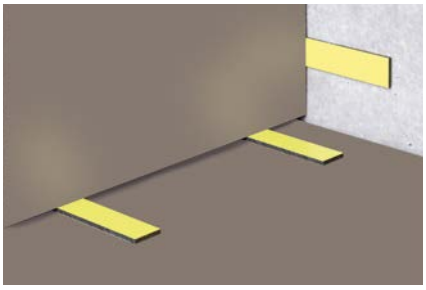


Fig. 2

Fig. 3

Fig. 4

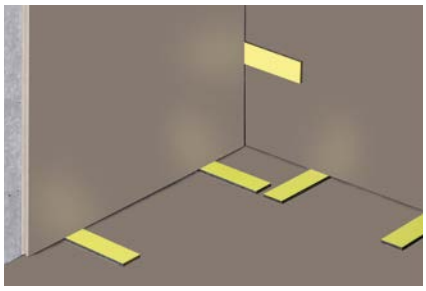


Fig. 5

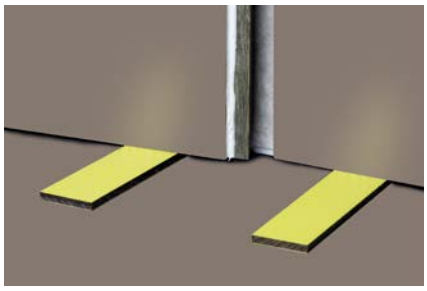


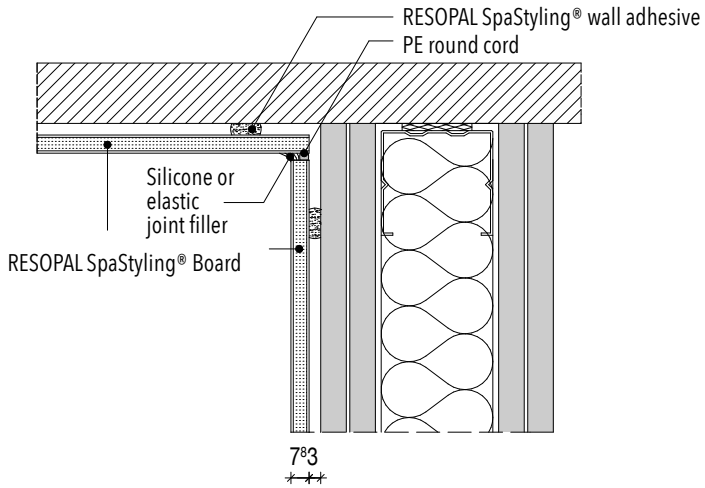
Fig. 6

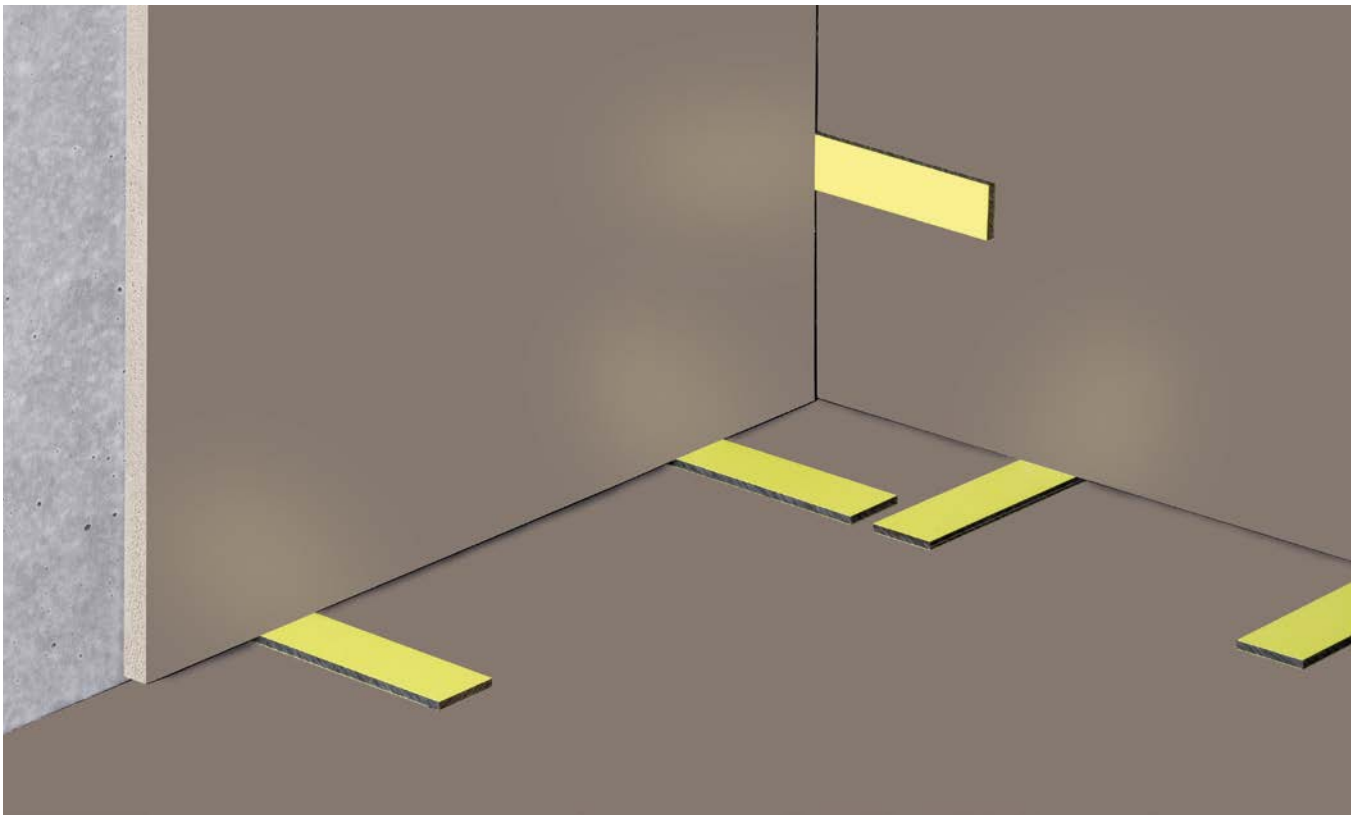
Fig. 7

RESOPAL SPASTYLING® BOARD CORNER SOLUTIONS

INSIDE CORNER BUTT JOINT

1. Glue the first RESOPAL SpaStyling Board with a distance of approx. 3 mm from the inner wall corner and the floor onto the first wall leg.
2. Glue the second RESOPAL SpaStyling Board to the second wall leg at a distance of approx. 3 mm from the inner wall corner and the floor.
3. Insert a PE round cord as backfill in the 3 mm joint of the inner corner and grout with either silicone or elastic joint filler.

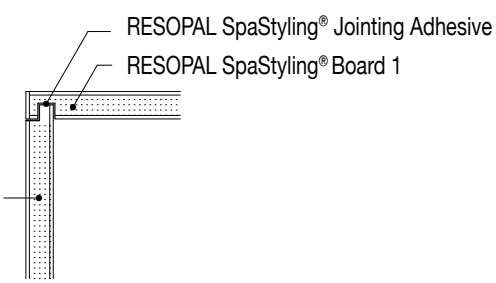


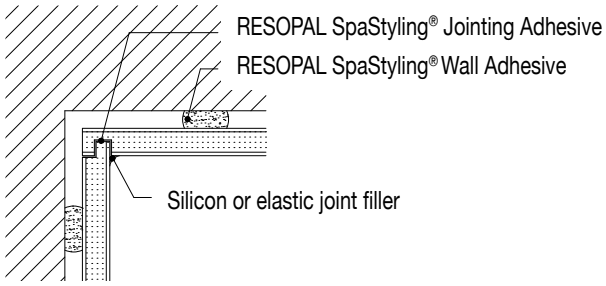


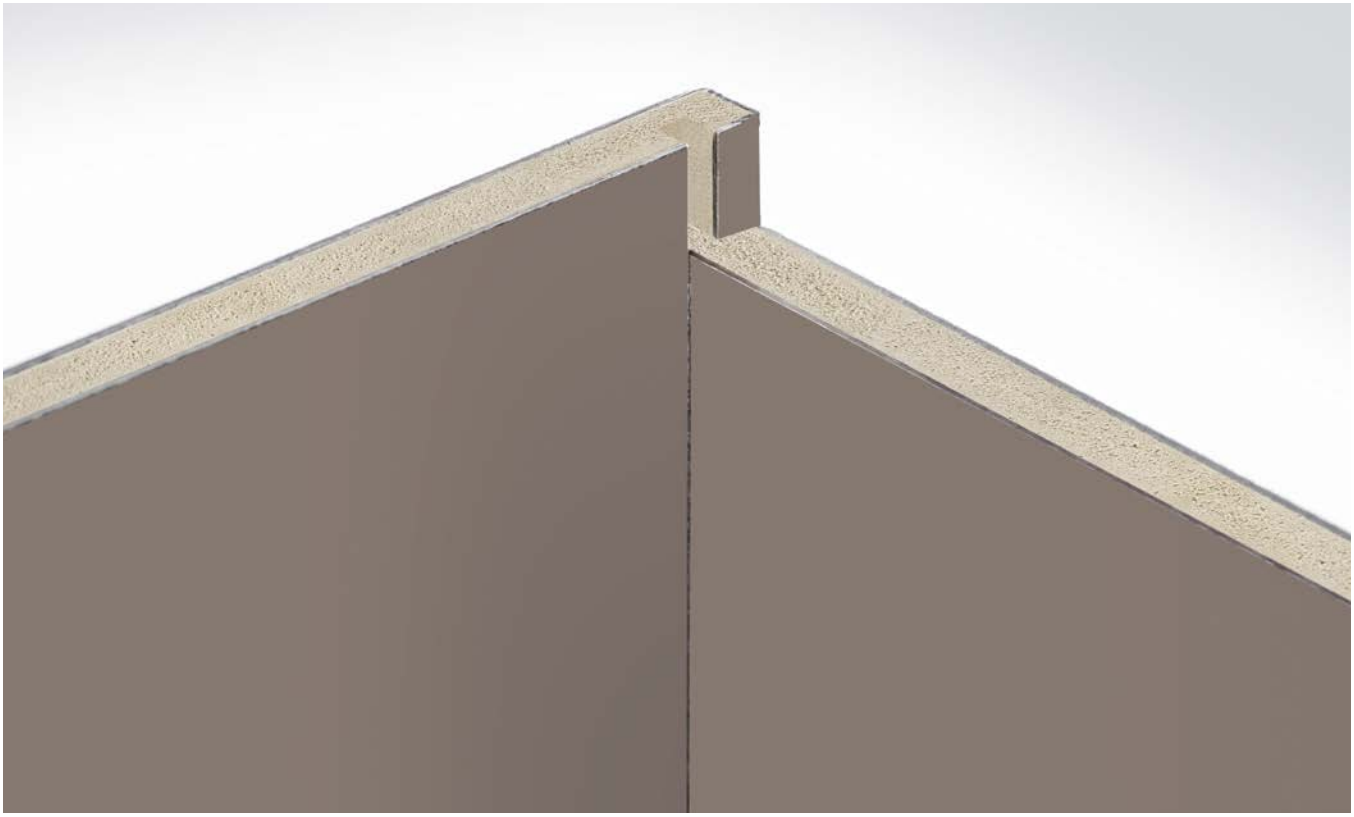
RESOPAL SPASTYLING® BOARD CORNER SOLUTIONS

INNENECK WITH MILLED TONGUE AND GROOVE JOINT

1. Mill a 3 mm groove into the surface of the first RESOPAL SpaStyling Board and mill a corresponding rebate on the second RESOPAL SpaStyling Board so that a 3 mm wide tongue is created.
2. Glue the first RESOPAL SpaStyling Board to the first wall leg at a distance of approx. 3 mm (adhesive thickness) from the inside corner of the wall.
3. Apply RESOPAL SpaStyling Jointing Adhesive into the groove. Then insert the milled tongue of the second RESOPAL SpaStyling Board into the groove, join the RESOPAL SpaStyling Boards and glue the second RESOPAL SpaStyling Board to the second wall leg.
4. Then grout the inside corner with permanently elastic silicone.



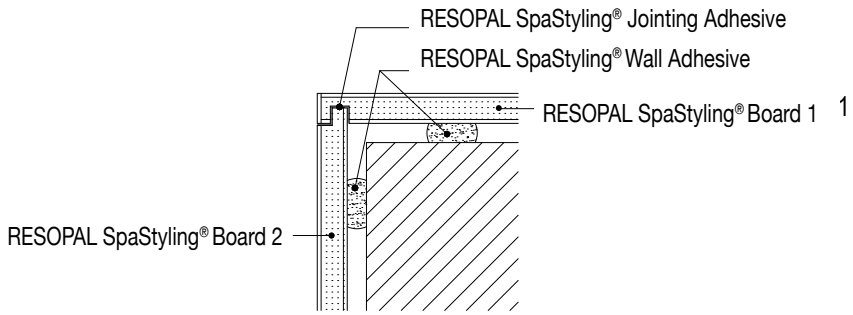




RESOPAL SPASTYLING® BOARD CORNER SOLUTIONS

OUTSIDE CORNER WITH NARROW-SURFACE EDGING AND MILLED TONGUE-AND-GROOVE JOINT

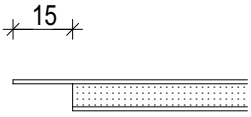
1. Apply an edge to the narrow surface of the first RESOPAL SpaStyling Board (p. 40).
2. Mill a 3 mm groove into the surface of the first RESOPAL SpaStyling Board and mill a rebate onto the second RESOPAL SpaStyling Board.
3. Glue the first RESOPAL SpaStyling Board with an overhang of approx. 10 mm (board thickness + adhesive application) from the outer corner of the wall onto the first wall leg.
4. Apply RESOPAL SpaStyling Jointing Adhesive into the groove. Insert the milled tongue of the RESOPAL SpaStyling Board 2 into the groove, join the RESOPAL SpaStyling Boards and glue the RESOPAL SpaStyling Board 2 onto the second wall leg.



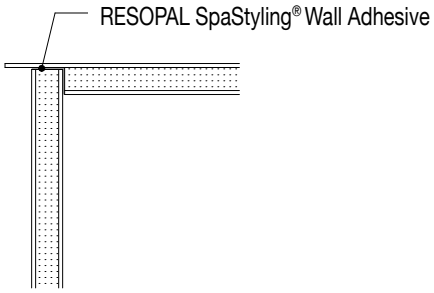
RESOPAL SPASTYLING® BOARD CORNER SOLUTIONS

OUTSIDE CORNER WITH REBATED SUPPORT MATERIAL

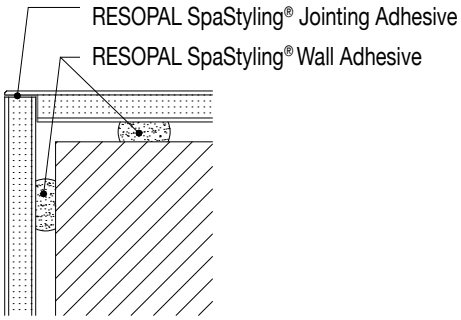
1. With the first RESOPAL SpaStyling Board, the substrate is completely rebated so that only the HPL forms a rebate of approx. 15 mm in depth.



2. The second RESOPAL SpaStyling Board is glued into the rebate described above at right angles to the first RESOPAL SpaStyling Board. The protruding HPL of the first RESOPAL SpaStyling Board is glued to the narrow surface of the second RESOPAL SpaStyling Board. During the setting process of the adhesive, the joint is held in a mould or using clamps and allowances. After the adhesive has set, the still protruding HPL is milled flush with a flush milling cutter.



3. The prefabricated outside corner (entire moulded parts can also be produced in this way) made of RESOPAL SpaStyling Board is then glued to the wall or to the tub support using RESOPAL SpaStyling Wall Adhesive.



RESOPAL SPASTYLING® BOARD CORNER SOLUTIONS

INTERIOR AND EXTERIOR MITRED CORNERS

RESOPAL SpaStyling Boards are also suitable for prefabricating shells for pre-wall, shower tray or bathtub cladding with inside and outside mitred corners.

1. The panel ends of the RESOPAL SpaStyling Boards are mitred using a circular saw or a hand-held circular saw. The mitres are joined on the outer sides with adhesive tape. Figure 1
2. RESOPAL SpaStyling Jointing Adhesive is placed in the open mitre. Figure 2
3. The panel parts are now folded together and held in place while the adhesive sets using adhesive tape and/or clamps. (Observe the drying times! approx. 24 h. With PUR adhesive 6 - 12 h depending on the manufacturer). The mitre tip must be broken with sandpaper. The prefabricated shells made of RESOPAL SpaStyling Boards are then glued to the pre-wall or to tub supports with RESOPAL SpaStyling Wall Adhesive. Figure 3

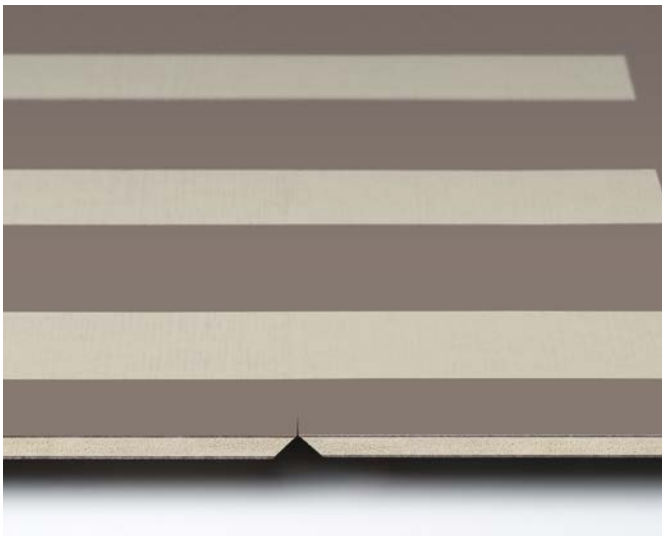


Fig. 1

Fig. 2

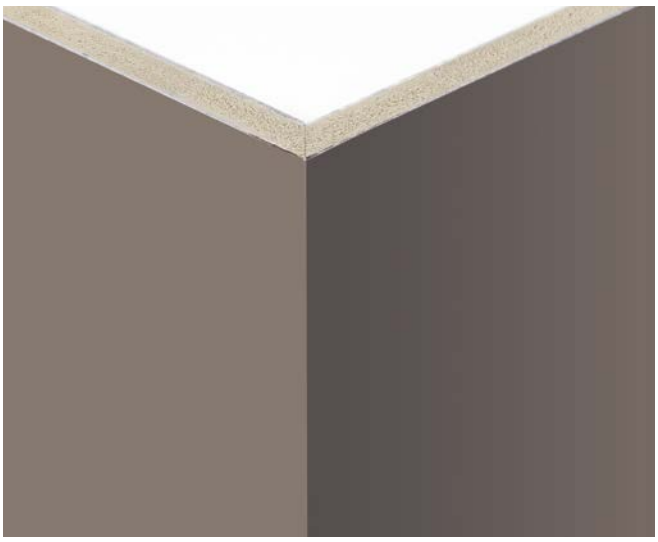


Fig. 3

RESOPAL SPASTYLING® BOARD CONNECTION OF TWO BOARDS WITH CONNECTION PROFILE

Important: Please observe the general notes and information on the wall substrate (see page 35).

If SpaStyling boards with decors from the Steine and RESOPAL® Creative Selection collections are used, then the notes on page 21 must also be taken into account. Furthermore, it must be taken into account that the decor course is visually interrupted by the profile beyond the board joint.

Larger thickness tolerances of RESOPAL SpaStyling Board with RESOPAL HPL Traceless Premium and with RESOPAL HPL Creative Selection can lead in individual cases to the opening being too small for the RESOPAL SpaStyling profiles (connecting and corner profile). In these cases we recommend a conventional connection without the use of RESOPAL SpaStyling profiles.

1. **Push the profiles onto the first RESOPAL SpaStyling® board.**
   Pour RESOPAL SpaStyling Jointing Adhesive into the profile opening of the connection profile. The RESOPAL SpaStyling Jointing Adhesive must be applied as a continuous adhesive bead with a diameter of approx. 3 mm. Then push the profile onto the long side of the first RESOPAL SpaStyling Board. The connection between profile and RESOPAL SpaStyling Board must be waterproof. RESOPAL SpaStyling Jointing Adhesive that has swelled out of the profiles must be removed from the surface immediately. Figures 8 - 9

   Follow steps 2. to 6. as described above.

2. **Pour RESOPAL SpaStyling® Jointing Adhesive into the connection profile.**
   Now also pour RESOPAL SpaStyling Jointing Adhesive into the profile opening of the connection profile. Figure 10

3. **Push the RESOPAL SpaStyling® Board into the connection profile and press it on.**
   The second RESOPAL SpaStyling Board is placed in front of the wall on 3 mm spacers, pushed into the connection profile and then pressed into the adhesive bed. The connection between profile and RESOPAL SpaStyling Board must be waterproof. RESOPAL SpaStyling Jointing Adhesive that has squeezed out of the profiles must be removed from the surface immediately. Figure 11

   Follow steps 9 to 10 - as described above.

Fig. 8

Fig. 9

Fig. 10

Fig. 11

RESOPAL SPASTYLING® BOARD CORNER SOLUTIONS

INSIDE AND OUTSIDE CORNERS WITH RESOPAL SPASTYLING® CORNER PROFILE

Larger thickness tolerances of RESOPAL SpaStyling Board with RESOPAL HPL Traceless Premium and with RESOPAL HPL Creative Selection can lead in individual cases to the opening being too small for the RESOPAL SpaStyling profiles (connecting and corner profile). In these cases we recommend a conventional connection without the use of RESOPAL SpaStyling profiles.

1. Pour jointing adhesive into the profile opening of the corner profile (inside and outside corner) for RESOPAL SpaStyling Boards. The amount of adhesive must be dosed exactly. Figure 1
2. Then push the profile onto the long side of the first RESOPAL SpaStyling Board. The connection between profile and RESOPAL SpaStyling Boards must be waterproof. Jointing adhesive that has leaked out of the profiles must be removed from the surface immediately. Figure 2
3. Jointing adhesive is now also poured into the profile opening of the second leg of the corner profile (inner and outer corner) for RESOPAL SpaStyling Board.
4. The second RESOPAL SpaStyling Board is placed in front of the wall on 3 mm spacers, pushed into the corner profile and then pressed into the adhesive bed. The connection between profile and RESOPAL SpaStyling Board must be waterproof. Jointing adhesive that has leaked out of the profiles must be removed from the surface immediately. Figure 3

Fig. 1

Fig. 2

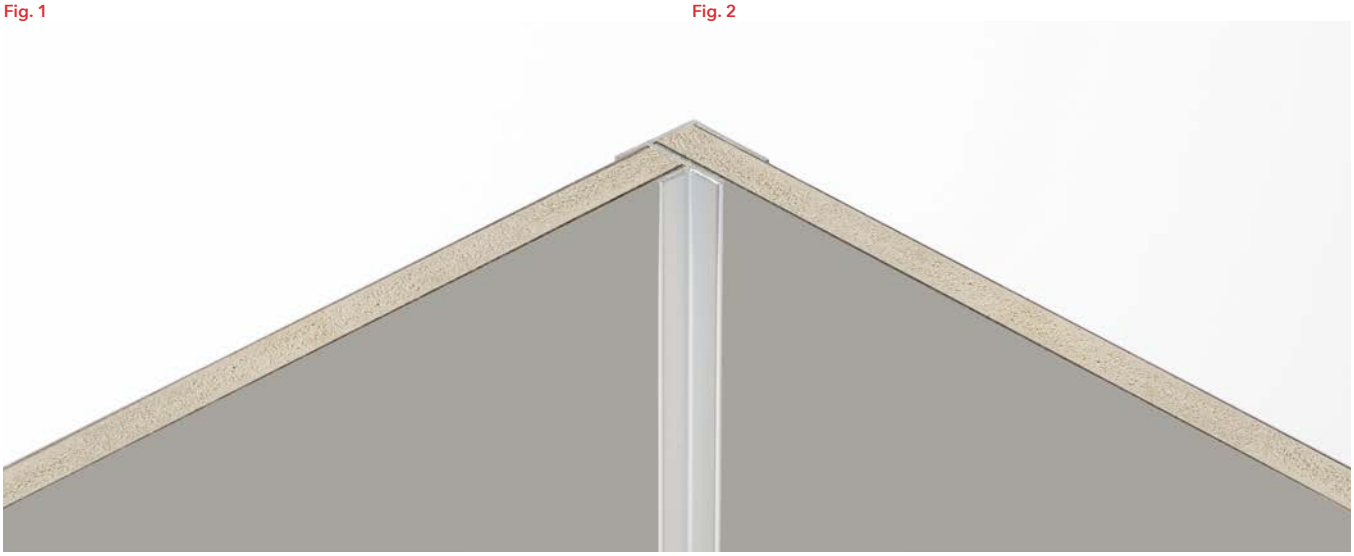


Fig. 3

RESOPAL SPASTYLING® BOARD INSTALLATION WITH CORNER AND END PROFILES

Larger thickness tolerances of RESOPAL SpaStyling Board with RESOPAL HPL Traceless Premium and with RESOPAL HPL Creative Selection can lead in individual cases to the opening being too small for the RESOPAL SpaStyling profiles (connecting and corner profile). In these cases we recommend a conventional connection without the use of RESOPAL SpaStyling profiles.

1. **Push the profiles onto the first RESOPAL SpaStyling® board.**
   Pour RESOPAL SpaStyling Jointing Adhesive into the profile openings of the corner and end profile. The amount of RESOPAL SpaStyling Jointing Adhesive must beapplied in the exact dosage. Then press both profiles onto the long sides of the first RESOPAL SpaStyling Board and fix them with adhesive tape until the adhesive has hardened. The connection between profile and RESOPAL SpaStyling Board must be waterproof. RESOPAL SpaStyling Jointing Adhesive that has leaked from the profiles must be removed from the surface immediately. Figure 1.1

2. **Apply adhesive to wall in strips.**
   RESOPAL SpaStyling Board is bonded to the substrate in strips. High-strength MS polymer adhesives have proven themselves for this type of bonding. The RESOPAL SpaStyling Wall Adhesive is applied in strips with a maximum distance of 250 mm between the adhesive beads and 30 mm from the outer edge of the board. In the wall areas where objects will later be fixed, the distance between the adhesive beads must be reduced or the application quantity increased so that there is no cavity between the RESOPAL SpaStyling Board and the wall substrate in these areas. The processing instructions of the adhesive manufacturer must also be observed. Figure 2.1

3. **Press on the RESOPAL SpaStyling® Board.**
   Place the RESOPAL SpaStyling Board in front of the wall on 3 mm spacers, align it and then press it into the adhesive bed. Figure 3.1

4. **Align the RESOPAL SpaStyling® Board.**
   Check the position of the RESOPAL SpaStyling Boards on the wall in the adhesive bed and align again if necessary.
   Figure 4.1

5. **Push the profiles onto the second RESOPAL SpaStyling® Board.**
   Pour RESOPAL SpaStyling Jointing Adhesive into the profile opening of the end profile. The amount of RESOPAL SpaStyling Jointing Adhesive must be applied in the exact dosage. Then push the profile onto the long side of the RESOPAL SpaStyling Board. The connection between profile and RESOPAL SpaStyling Board must be waterproof. RESOPAL SpaStyling Jointing Adhesive that has leaked out of the profiles must be removed from the surface immediately.
   Figure 5.1

6. **Apply RESOPAL SpaStyling® wall adhesive to the wall in strips.**
   Now also apply the RESOPAL SpaStyling Wall Adhesive in strips to the second wall surface as described above under point 2. Figure 6

7. **Pour RESOPAL SpaStyling® Jointing Adhesive into the corner profile.**
   Now also apply RESOPAL SpaStyling Jointing Adhesive into the profile opening of the corner profile. Figure 7

8. **Push the RESOPAL SpaStyling® Board into the corner profile and press it on.**
   The second RESOPAL SpaStyling Board is placed in front of the wall on 3 mm spacers, pushed into the corner profile and then pressed into the adhesive bed. The connection between profile and RESOPAL SpaStyling Board must be waterproof. RESOPAL SpaStyling Jointing Adhesive that has leaked out of the profiles must be removed from the surface immediately.

9. **Align the RESOPAL SpaStyling® Board.**
   Check the position of the RESOPAL SpaStyling Board on the wall in the adhesive bed and the connection to the corner profile and align again if necessary.

10. **Seal all connection joints.**
    After all RESOPAL SpaStyling Boards have been installed, all movement joints that have the task of compensating for changes in shape, as well as connections of shower trays or bathtubs, must be sealed with silicone.

Fig. 1.1

Fig. 1.2

Fig. 1.3

Fig. 1.4

Fig. 2.1

Fig. 2.2

Fig. 3.1

Fig. 3.2

Fig. 4.1

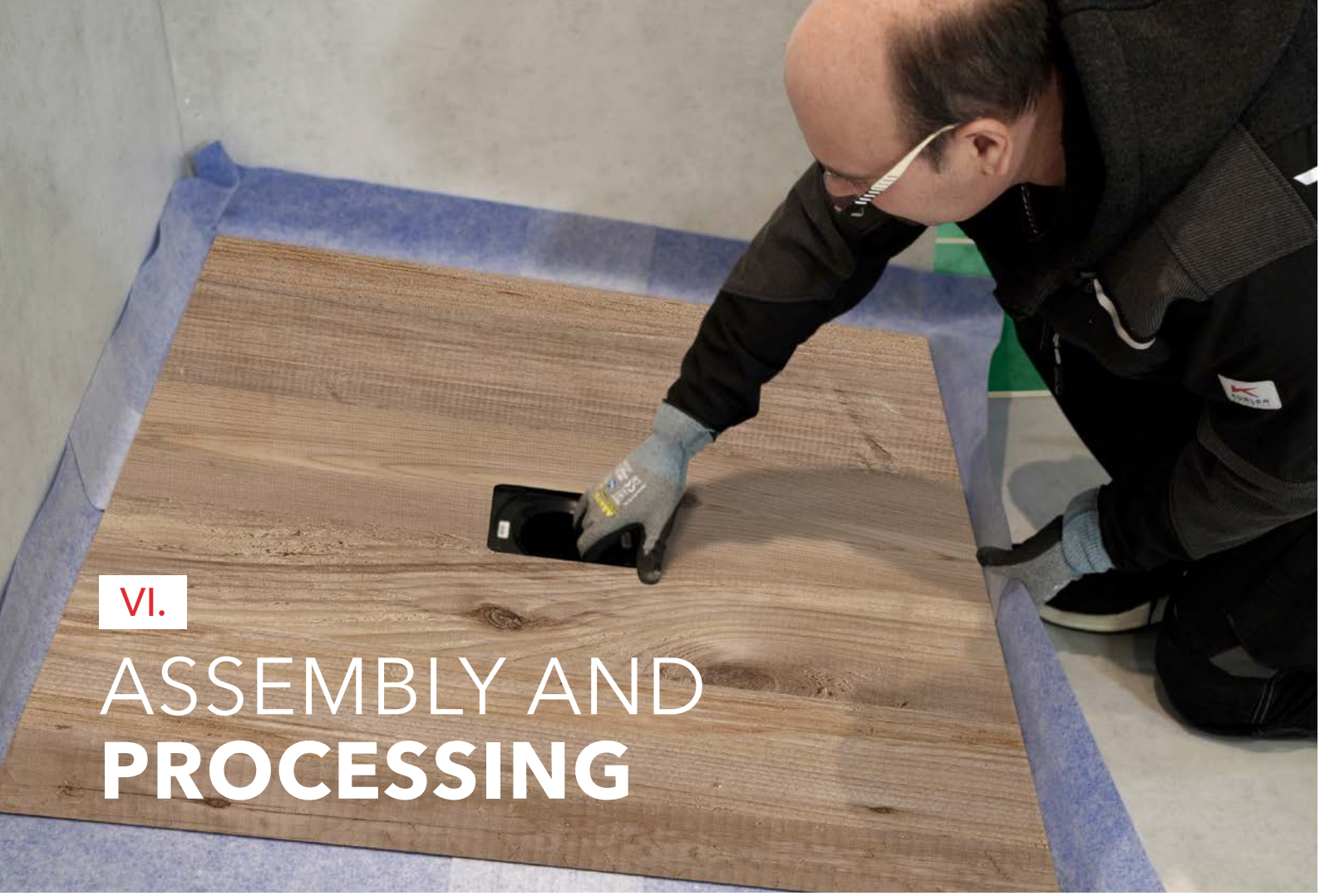
Fig. 4.2

Fig. 5.1

Fig. 5.2

Fig. 6

Fig. 7



VI.

ASSEMBLY AND **PROCESSING**

RESOPAL SPASTYLING® SHOWER ELEMENTS

GENERAL INSTRUCTIONS

- RESOPAL SpaStyling Shower Elements are supplied made to measure and must not be shortened. Shower Elements must be installed within 6 weeks of delivery. This critically requires proper storage.
- The way in which the shower area is to be used (splash guard, movement area etc.) must be taken into account.
- For the installation of the RESOPAL SpaStyling Shower Element, a level, clean, load-bearing, vibration-free substrate suitable for bonding with Flex tile adhesive must be available.
- The correct fit of the drain body must be checked.
- The RESOPAL SpaStyling Shower Element is generally wheelchair-accessible.
- Only suitable for indoor use.
- Rising connections must be made with a minimum distance of 3 mm between the floor and the RESOPAL SpaStyling
- Board. For connections between RESOPAL SpaStyling Shower Element and the adjacent floor, a minimum distance of 4 mm must be maintained. These connections must be permanently sealed with silicone! Depending on the requirements, cut protection for maintenance of the silicone joint should be integrated.These connections are maintenance joints! Observe the manufacturer's specifications.
- RESOPAL SpaStyling Shower Elements are not suitable for use in saunas, steam baths or steam showers.

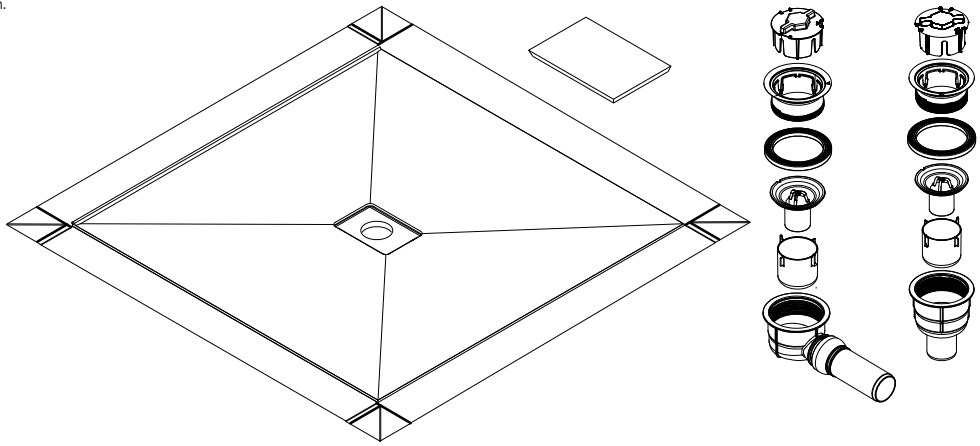
INSTALLATION EXAMPLE WITH SUBSTRUCTURE ELEMENT (X)

Installation height/finished floor	120 mm
RESOPAL SpaStyling Shower Element	- 50 mm
2 layers of tile adhesive	- 10 mm
Substructure element (X)	**= 60 mm**

The relevant processing guidelines of all trades involved and of the installation accessories must be observed. Protect the surface from damage during installation (e.g. with cardboard or fleece).

RESOPAL SPASTYLING® SHOWER ELEMENTS WITH DRAIN (CENTRAL/DECENTRAL DRAIN)

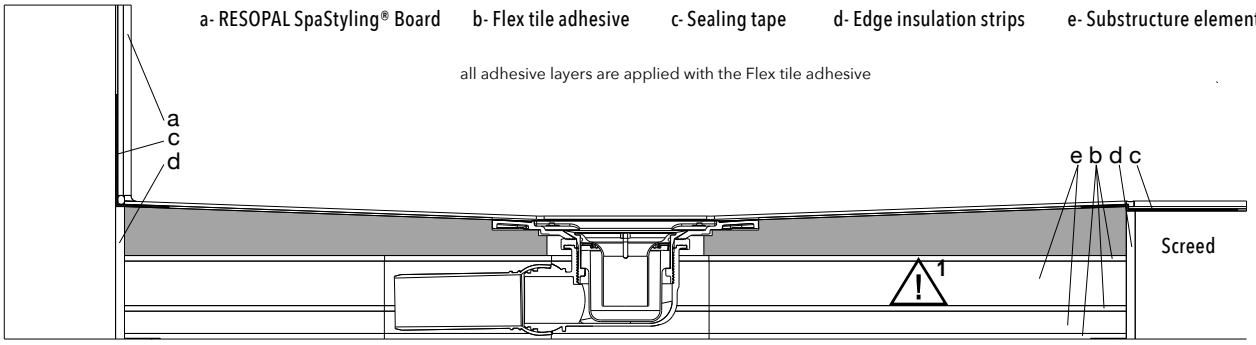
Please note:
The final gradient will only be achieved by professional installation.
A factory-made curvature of the
element is intended and not a product defect.



1a Representation of drain in its horizontally installed state

a- RESOPAL SpaStyling® Board b- Flex tile adhesive c- Sealing tape d- Edge insulation strips e- Substructure element

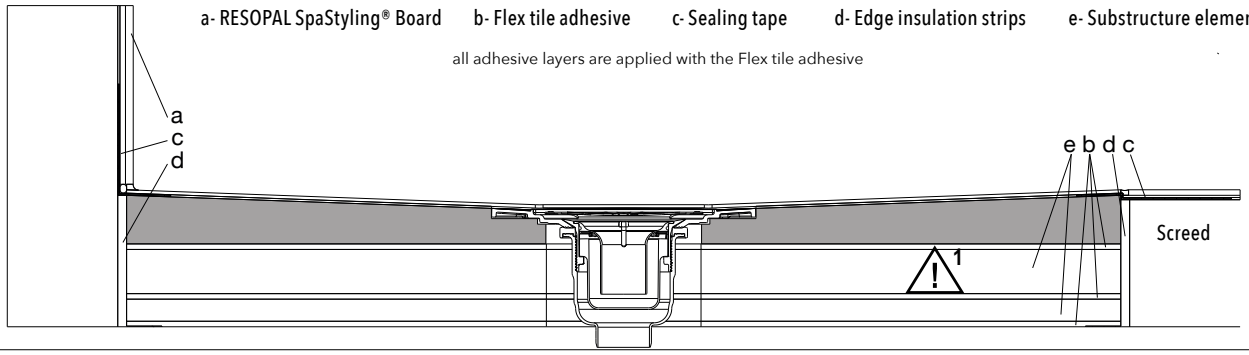
all adhesive layers are applied with the Flex tile adhesive



1b Representation of drain in its vertically installed state

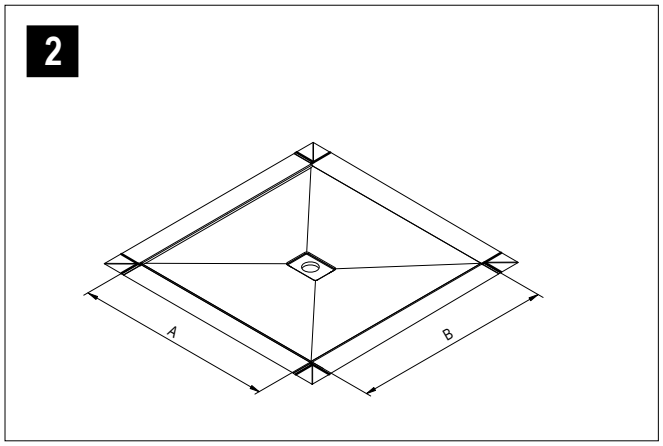
a- RESOPAL SpaStyling® Board b- Flex tile adhesive c- Sealing tape d- Edge insulation strips e- Substructure element

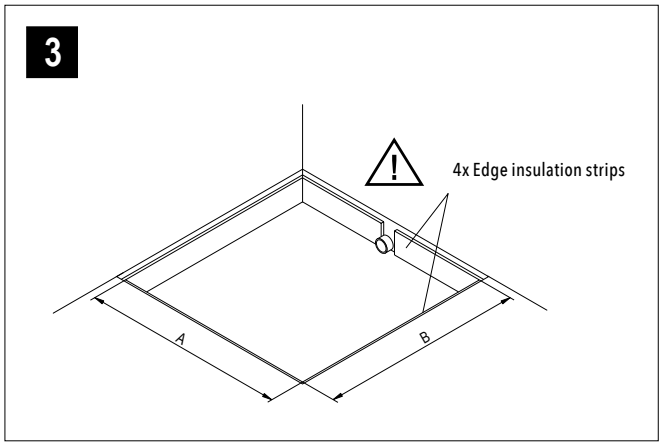
all adhesive layers are applied with the Flex tile adhesive

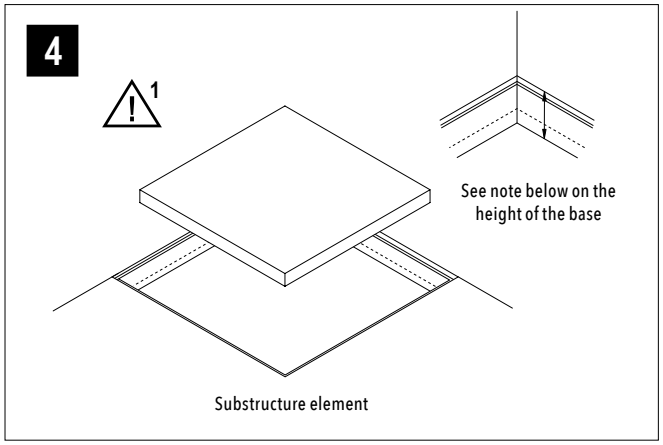


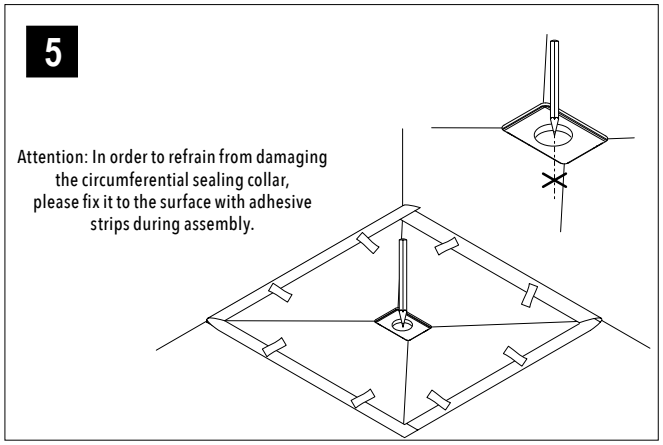
1 When installing, care must be taken to ensure a suitable substructure, which must be provided by the customer.
Permissible are: mortar-coated hard foam boards, EPS substructure elements with min. 25 kg/m³, screed base.

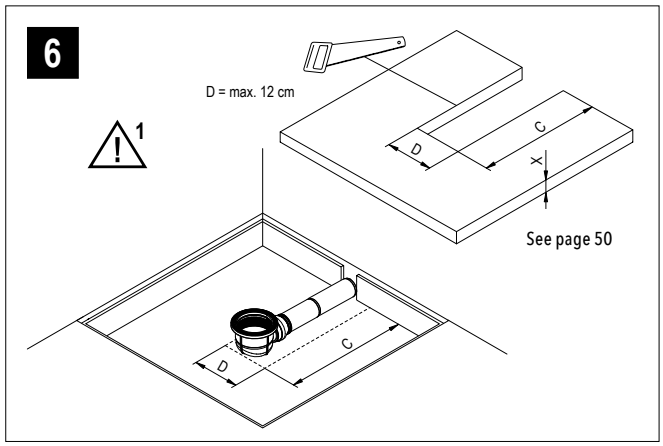
The height of the substructure is to be selected on the basis of the difference in height between the unfinished and finished floor (see also installation examples).

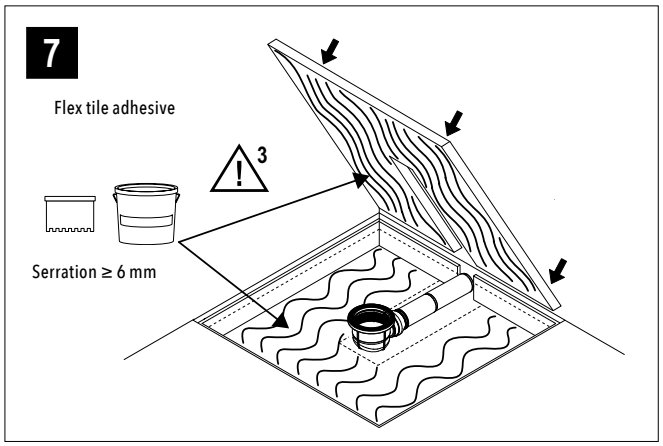










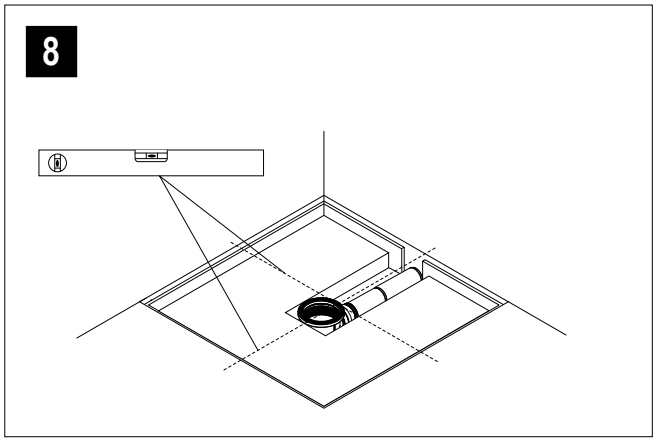


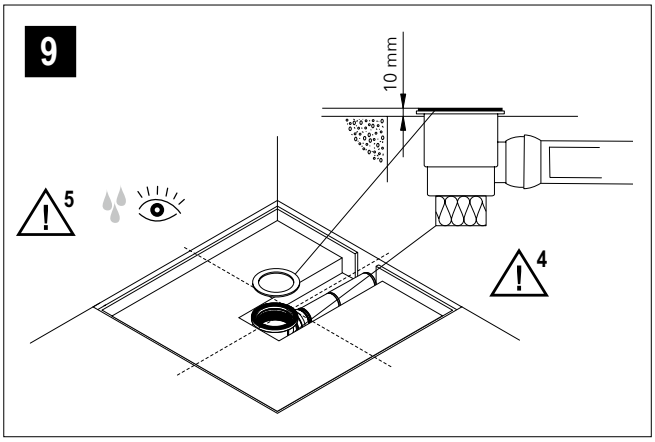
1 When installing, care must be taken to ensure a suitable substructure, which must be provided by the customer. Permissible are: mortar-coated hard foam boards, EPS substructure elements with min. 25 kg/m³, screed base.

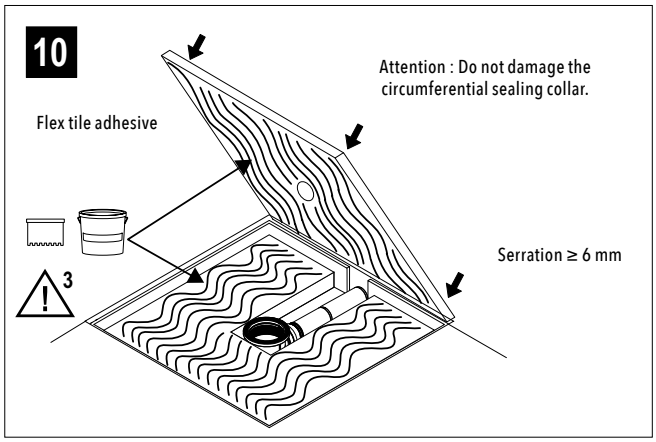
The height of the substructure is to be selected on the basis of the difference in height between the unfinished and finished floor (see also installation examples).

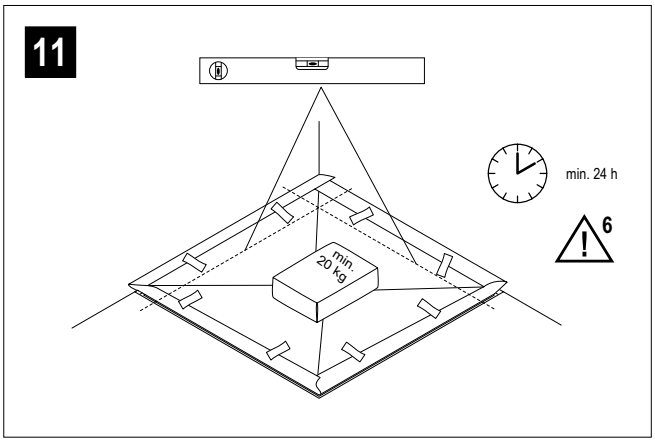
2 Edge insulation strips must be provided by the customer.

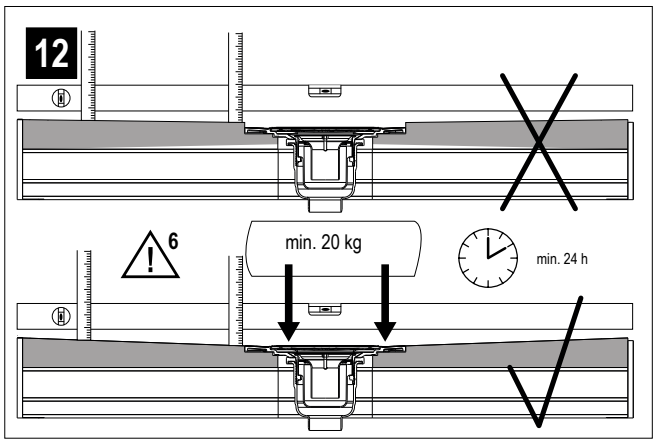
3 Apply Flex tile adhesive on both sides.

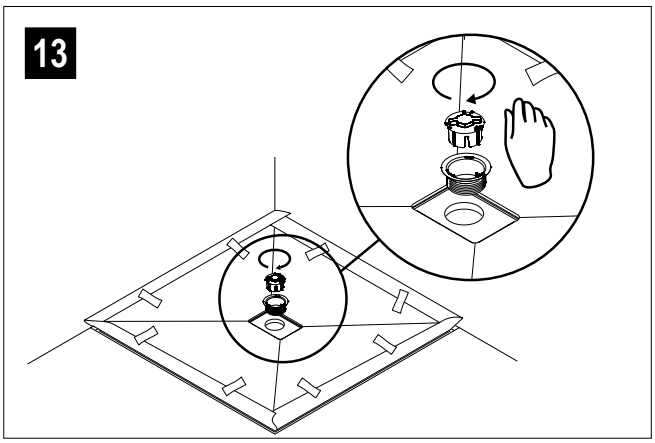










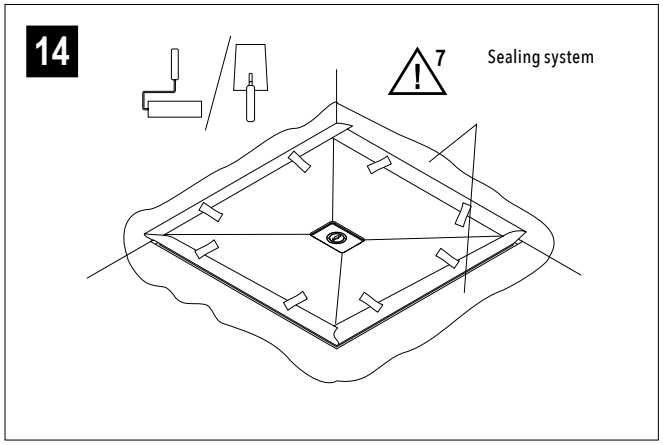


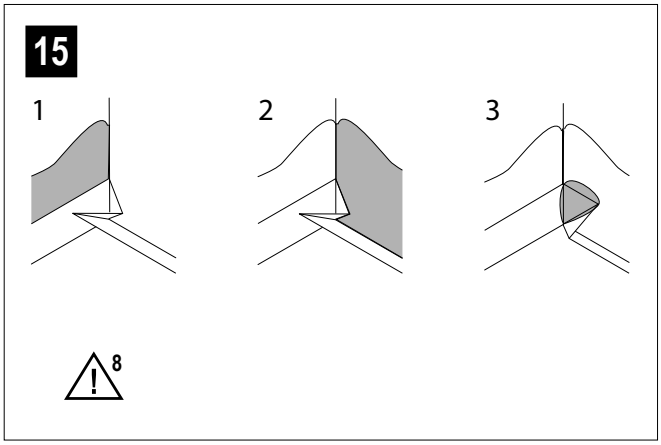
3 Apply Flex tile adhesive on both sides.

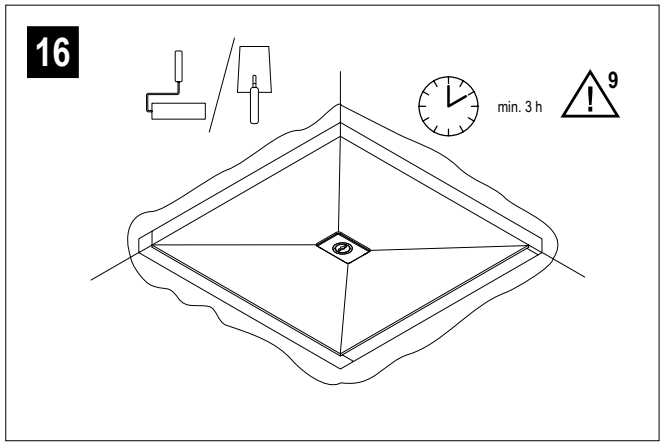
4 If necessary, the drain set must be underlaid with suitable sound-absorbing material.

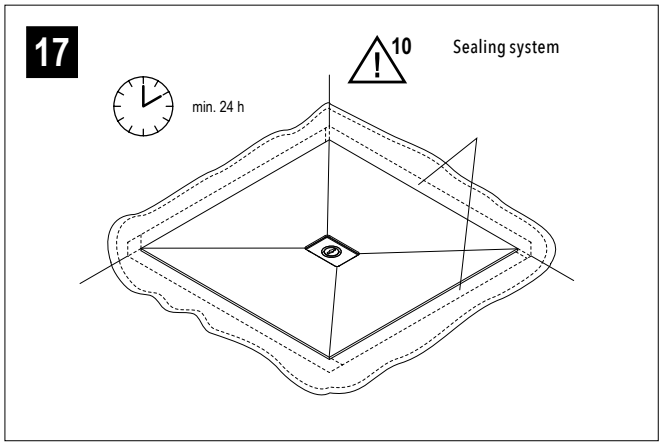
5 After installation of the drain set, a drain test and leak test must be carried out.

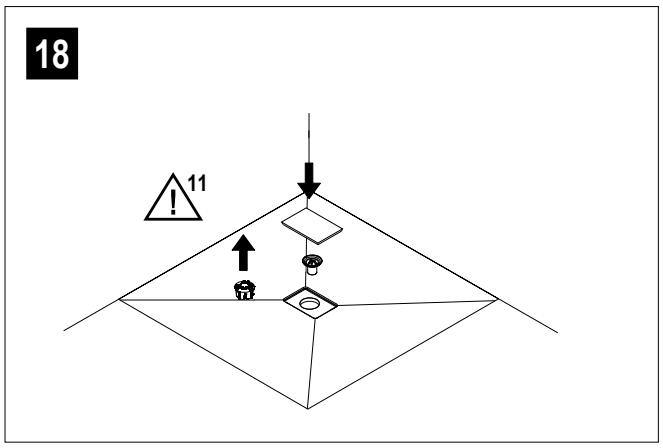
6 Install the RESOPAL SpaStyling Shower Element in horizontal position and weigh it down in the areas as shown in Fig. 11. The slope lines to the drain must then be checked.

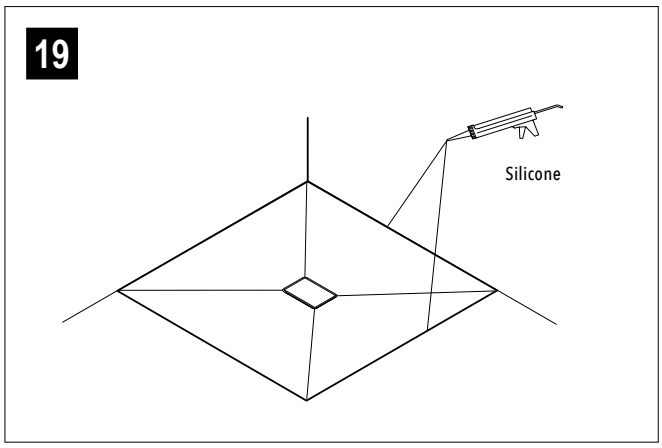












7 The processing instructions of the sealing system must be observed.

8 Fold the corners of the sealing tape at the pre-stamped points. The sealing tape and the resulting overlaps must be completely sealed with sealing compound.

9 Insert the sealing tape into the applied sealant.

10 **Cover the sealing tape with composite sealant (e.g. Poresta sealing compound KMK).**

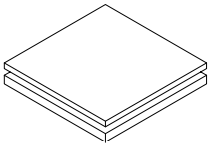
11 Follow the installation instructions for the drain body. Keep the installation spanner for maintenance purposes.

RESOPAL SPASTYLING® SHOWER ELEMENTS INSTALLATION ACCESSORIES AND TOOLS REQUIRED

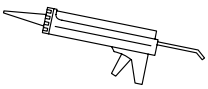
INSTALLATION ACCESSORIES

Flex tile adhesive - standard DIN EN 12004
Recommended and tested in the system is Poresta Profi - Flex

Sealing system Poresta sealing compound KMK is recommended and tested in the system.



Substructure element

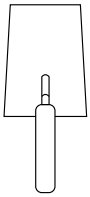


Sanitary silicone

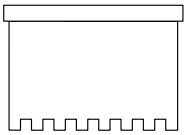
Round cord with or without cut protection

TOOLS

Spirit level

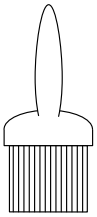


Trowel

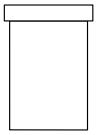


Toothed trowel ≥6 mm

Saw



Brush



Spatula

V.

ASSEMBLY AND **PROCESSING**

RESOPAL SPASTYLING® ADHESIVES

GENERAL INSTRUCTIONS

Everything for easy and rapid installation: RESOPAL SpaStyling offers a complete system for more safety and maximum comfort when redesigning the bathroom. Optimally coordinated components ensure that installation is also rapid and clean. RESOPAL offers special wall and jointing adhesives that have been optimally matched to the application purpose.

Please also refer to the technical product and safety data sheet before processing.

RESOPAL SPASTYLING® JOINTING ADHESIVE

PREPARATION OF THE PARTS TO BE JOINED

To achieve good results, the parts to be joined must be load-bearing, clean and free of dust, oil and grease. Cleaning with cleaning alcohol, isopropanol or acetone is recommended. With various materials, good adhesion is achieved even without adhesion promoters. However, the adhesion to the respective substrate should be tested in advance by means of an adhesive test.

PROCESSING

GENERAL INSTRUCTIONS

- Can be applied directly from the cartridge using a suitable gun (hand, compressed air, battery gun).
- Cut the nozzle tip according to the parts to be bonded.
- Depending on the bonding surface, material expansions, stresses and mechanical loads, a layer thickness of 1 - 6 mm is recommended
- fully automatic dosing is possible
- with diffusion-open substrates, the compound can be applied over a large area using a notched trowel
- the adhesive must be applied within the working time
- Uncured adhesive can be removed with cleaning alcohol or isopropanol.
- cured adhesive can only be removed mechanically
- under UV light the original transparency can be lost

BONDING OF RESOPAL SPASTYLING® BOARDS TO EACH OTHER AND TO PROFILES

The connection of RESOPAL SpaStyling Boards to each other (e.g. tongue and groove or mitre joints) and the connection between RESOPAL SpaStyling Boards and profiles must be waterproof. For this purpose, the adhesive is applied to each groove (on the groove cheeks) of the two RESOPAL SpaStyling Boards to be joined or to the profile openings. The amount of adhesive must be measured exactly. Adhesive that has leaked out or adhesive residue on the surface must be removed immediately.

RESOPAL SPASTYLING® WALL ADHESIVE

SUBSTRATE PREPARATION

To achieve good results, the wall substrate must be load-bearing, level, clean, dry and free of dust, oil and grease, in accordance with the recognised rules of the trade and the state of the art. With many clean material surfaces and wall substrates, good adhesion is achieved even without adhesion promoters. However, the adhesion to the respective substrate should be tested in advance by means of an adhesive test. For porous, absorbent and difficult substrates, the use of adhesion promoters/primers is always recommended in advance.

PROCESSING

GENERAL INSTRUCTIONS

- can be applied directly from the cartridge using a suitable gun (hand, compressed air, battery gun).
- For bonding, application with the enclosed triangular nozzle is recommended.
- Depending on the bonding surface, material expansions, stresses and mechanical loads, a layer thickness of 3 - 6 mm is recommended
- the adhesive must be applied within the working time
- Supporting the bonded parts is usually not necessary.
- Uncured adhesive can be removed with cleaning alcohol or isopropanol.
- Cured adhesive can only be removed mechanically.

BONDING RESOPAL SPASTYLING® BOARD TO WALL SUBSTRATES

When bonding in strips, it must be ensured that the distance between the adhesive beads is a maximum of 250 mm and between the adhesive bead and the edge of the board a maximum of 30 mm. Furthermore, it must be ensured that the RESOPAL SpaStyling Boards are not hollow in the areas of the wall to which objects (washbasins, WCs etc.) will later be attached, but that full-surface adhesive is applied in this area or that underlay material is also inserted into the adhesive bed.

VI.

MAINTENANCE, CARE AND **CLEANING**

Resopal panels (decorative high-pressure laminates) are undemanding and do not require any special care due to their resistant and hygienically dense surface. The cleaning recommendations apply to surface contamination caused by general use, processing and installation of RESOPAL SpaStyling Boards, RESOPAL SpaStyling Shower Elements.

GENERAL CLEANING

Slightly soiled boards are cleaned with a soft, clean and, if necessary, moistened cloth. Heavier soiling can be removed with a warm soap or detergent solution or with a commercial cleaning agent, if necessary after a longer period of exposure. Remaining residues can generally be dissolved with organic solvents such as ethanol, acetone, petroleum ether or nail polish remover. Neutralise with water afterwards. Only use clean, soft cloths, soft sponges or soft brushes as cleaning aids! To preserve the brilliance of your spa styling products for a long time, we recommend that you wipe the surfaces with a rubber squeegee after showering.

Care waxes or polishes must not be applied; they leave a coating on Resopal® surfaces. This coating changes the typical surface properties.

Stubborn limescale can be removed with warm, ten per cent vinegar or citric acid or with commercially available mild bathroom cleaners (e.g. citrus cleaner). Afterwards, wipe with clear, warm water.

In general, the instructions of the cleaning agent manufacturer must be observed and it is recommended to always test the compatibility of any cleaning agent with the surface in advance on a non-visible area.

IMPORTANT NOTE

Only use cleaning agents that do not contain abrasive, strongly acidic or strongly bleaching components! Do not use high-pressure cleaners or steam cleaners for cleaning RESOPAL SpaStyling Boards, RESOPAL SpaStyling Shower Elements and RESOPAL SpaStyling Floor.

The Cleaning and Care for RESOPAL HPL and RESOPAL HPL Traceless Premium data sheets provide further information on cleaning and care of the respective surface.

VII.

WASTE DISPOSAL UND **ENERGY RECOVERY**

Residues and waste from RESOPAL SpaStyling Boards are particularly suitable for energetic (thermal) recycling due to their high calorific value and fulfil the requirement according to §6 paragraph 1 number 4 of the Recycling Management Act (KrWG).

The conditions for good combustion processes and waste gas treatment are ensured in waste incineration plants.

Residues and waste from RESOPAL SpaStyling Boards are assigned to the six-digit waste code AVV 200301 and the waste designation "mixed municipal waste" in accordance with the Ordinance on the European Waste List (Waste List Ordinance - AVV).

06/2023

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