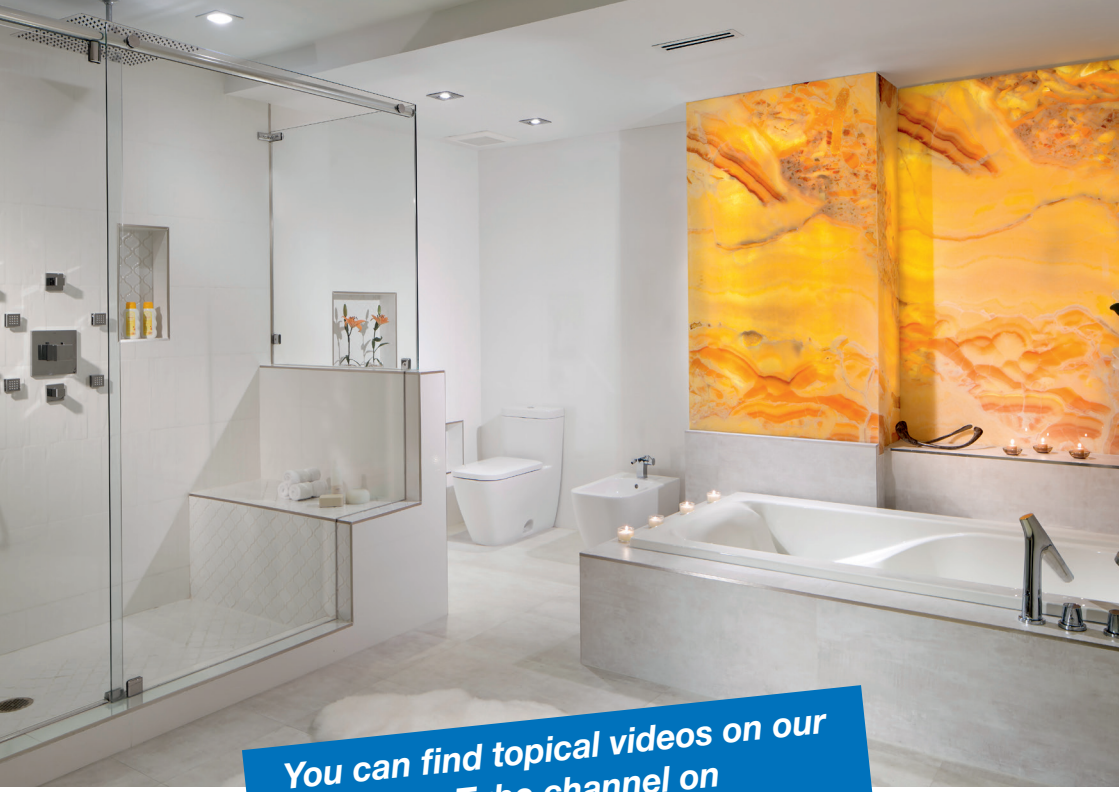
The OTTOFLEX System

sealing under tiles & slabs

OTTO CHEMIE

Sealants • Adhesives



You can find topical videos on our YouTube channel on www.youtube.de/ottochemievideos

Preface

For decades, sanitary rooms were purely functional and often windowless wet cells for personal hygiene. Over time they have developed into an established feature of architecture, reflecting the individual taste of the user. Quite apart from personal requirements, the technical demands are extremely high. The reason is that wherever surfaces come into contact with water, the underlying surfaces must be completely sealed. The OTTOFLEX system offers a wide range of perfectly compatible, certified components for the most diverse requirements.

Correct sealing under tiles and slabs (AIV)

The technical codes for the national standardisation of waterproofing and sealing in buildings were brought up to date in the summer of 2017. The DIN 18195, valid until then, was divided into the following 5 categories:

DIN 18531 Waterproofing roofs, balconies, loggias and pergolas

DIN 18532 Sealing concrete areas for vehicle traffic

DIN 18533 Waterproofing building components in contact with soil

DIN 18534 Sealing interior rooms

DIN 18535 Sealing tanks and pools

The current abP test reports are valid certification for these new standards!

„Water exposure classes“ replace „utility classes“ in the new DIN 18534, whereby the utility classes as we know them reappear in the water exposure classes WO-1 to WO-3. The OTTOFLEX system with OTTOFLEX Sealing Strip, OTTOFLEX Sealing Slurry, OTTOFLEX Protective Coating and other supplementary products such as OTTOCOLL® M500, various tapes and sleeves are all approved for sealing under the new water exposure classes.

The current abP test reports provide valid certification for these new standards. However, in addition to the existing certification, there may be addtional requirements for certain products to meet the new standard. Specific information concerning each product can be found in the Standards and Tests section of the relevant technical data sheets.

Tables showing which products are suitable in accordance with the new DIN standards can be found on pages 22-33

Preparing the surface and forming the joint

The surfaces must be level, clean, stable, dry, free of oil or grease and free of residues such as dust, dirt or other particles. Residues must be removed by sweeping or vacuuming. The surface must not have any holes, ridges or cracks. Irregularities must either be corrected before the treatment or afterwards using a suitable tile adhesive.

The residual moisture must not exceed the following values:
Cement screed 2 CM %
Anhydrite screed 0,5 CM %
Anhydrite screed (heated) 0,3 CM %

Porous or highly absorbent mineral-based surfaces such as plasterboard or other surfaces containing gypsum should be treated with OTTOFLEX primer and allowed to dry for at least 2 hours. Stucco (plaster) and anhydrite screed should be treated in advance with OTTOFLEX deep primer.

If you are working with chemically-based non-porous surfaces, such as polyurethanes, acrylate polymers, epoxy polymers etc., we ask you to contact our application technicians.

Please refer to the technical data sheets of the products for instructions on use of the sealing materials.

The following C-2 adhesives have been certified according to the abP as suitable for sealing in combination with OTTOFLEX Protective Coating:

Ardex X 7 G PLUS

Botament M 21 Classic

Codex Power CX 1

Mapei Keraquick S1

PCI flexible mortar

PCI FT Extra

PCI flexible mortar S1

Sakret flexible tile cement FFK

Schönox Q6

Sopro tile cement No. 1

Please refer to the current list of all certified C2 adhesives on our OTTO-Website!

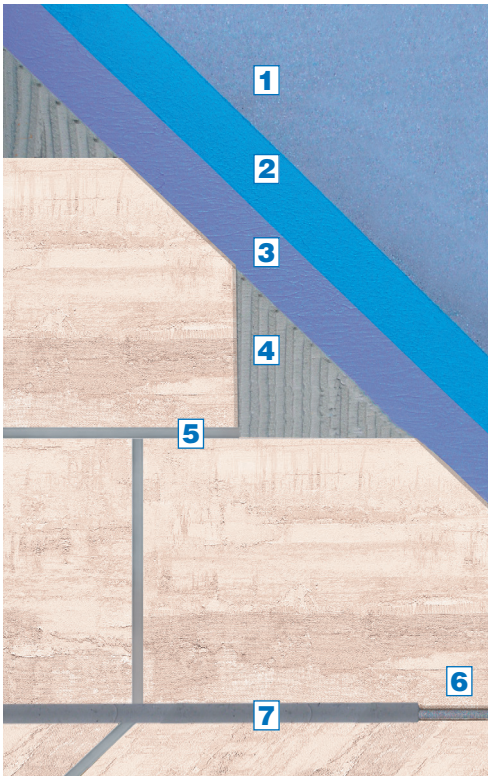


Diagram of layers

1 OTTOFLEX Primer or
OTTOFLEX Adhesive Primer or
OTTOFLEX Deep Primer –
the surface hardener

2 OTTOFLEX Protective Coating – 1st coat

3 OTTOFLEX Protective Coating – 2nd coatund
in contrasting colour

4 Tile adhesive

5 Joint mortar

6 OTTOCORD PE-B2 – The closed-cell
PE back-up foam rod

7 OTTO Silicon-Dichtstoff, or with.
OTTOSEAL® S 100 – The premium bathroom silicone
OTTOSEAL® S 121 – The low odour premium bathroom silicone
OTTOSEAL® S 130 – The alkoxy sanitary silicone with ecologically harmless OTTO Fungitect® Silver Technology
OTTOSEAL® S 140 – The hotel and spa silicone with double protection against mould
OTTOSEAL® S 70 – The premium natural stone silicone
OTTOSEAL® S 80 – The premium alkoxy natural stone silicone

If required, the recommended OTTO primer should be used to improve adhesion.
Please refer to the technical data sheets for information on each specific product.

In addition to the abP requirements, DIN 18534-1 stipulates the application of at least two layers of fluid sealant (AIV-F) which must entirely cover the surface and be in two contrasting colours.

OTTOFLEX Protective Coating offers an innovative solution to this:
A colour paste is provided with each container. Empty the contents of the sachet into the remaining liquid coating, mix well and apply as usual.

Advantages of the colour additive:

- Fewer containers required
- No risk of confusion during transport or on the building site

OTTOFLEX Protective Coating – 1st. layer

The total quantity needed must be calculated with a surplus. The wet coating must be at least 0,7mm thick to produce a layer of at least 0,5mm after drying. DIN 18534 -3 stipulates an addition of 25% for uneven surfaces.

OTTOFLEX Protective Coating can be applied using a spreading comb, paintbrush or roller, or it can be sprayed on. You must ensure that the whole surface is completely and evenly covered.

OTTOFLEX Protective Coating – 2nd. layer

Before a further layer can be applied, the previous one must be hardened to an extent that it will not be damaged when the next layer is applied.

Remove the sachet of colour paste from the container

Add the colour paste

Mix until the colour is uniformly dispersed

Clean the stirrer simply in water

Contrasting layers

If you are using a lambskin roller to apply OTTOFLEX Protective Coating, you must apply a second layer at 90 degrees to the first to avoid flaws.

Professional tip

Apply the first layer of OTTOFLEX coating over an area several centimetres wider than necessary. The second layer should cover the designated area.

By doing this, the correct application of 2 layers can easily be proved (with photos) should a dispute arise.

Preparing the surface and forming the joint

The underlying surface must be firm, stable, absorbent and as smooth as possible. Oil, grease or other materials which impair adhesion must be removed. Pockets of gravel, cavities or other irregularities exceeding the norms permitted by DIN 18202 must be corrected with a suitable concrete filler.

The residual moisture must not exceed the following values:
Cement screed: 2 CM %
Anhydrite screed: 0,5 CM %
Anhydrite screed (heated): 0,3 CM %

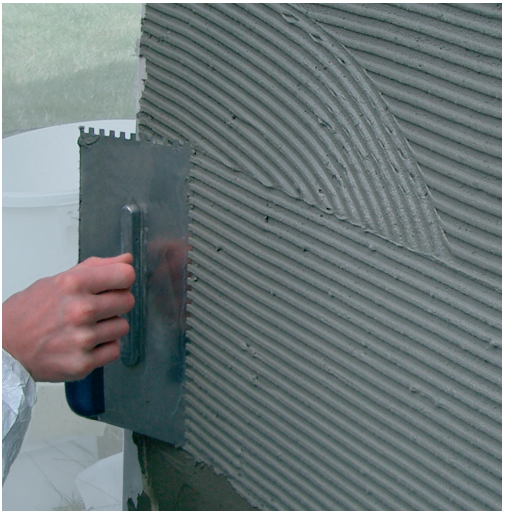
Cement surfaces should be pre-wet before applying OTTOFLEX Slurry Seal Coating. The surface should be slightly damp.

Priming:
Porous or highly absorbent surfaces: OTTOFLEX primer or OTTOFLEX deep primer.
Impermeable, non-porous surfaces: OTTOFLEX adhesive primer.

To avoid formation of lumps during mixing, please follow the instructions in the technical data sheets.

The total quantity needed must be calculated to ensure that the thickness of the dry coat is at least the stipulated minimum of 2,0mm (utility class A of the abP and water exposure classes WO-1 to WO-3 of the DIN 18534-3) or 2,5mm (utility class B of the abP). Please refer to our technical data sheets for details.

Applying OTTOFLEX Slurry Seal Coating



Applying OTTOFLEX Slurry Seal Coating with a spreading comb requires two coats in order to obtain a dry coat thickness of 2 mm. Applying OTTOFLEX Slurry Seal Coating with a short pile lambskin roller requires three coats in order to establish a dry coat thickness of 2 mm. DIN 18534-3 stipulates an additional 25% for uneven surfaces.

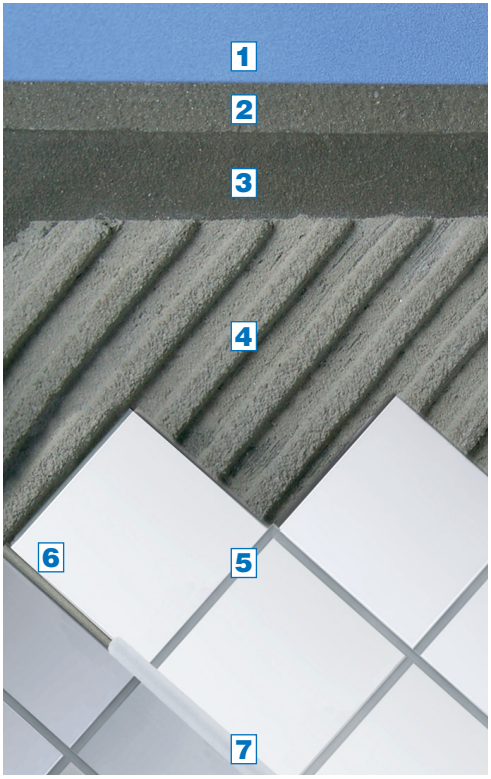


Diagram of layers

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2 OTTOFLEX Slurry Seal Coating – 1st coat

3 OTTOFLEX Slurry Seal Coating – 2nd coat
& possibly 3rd coat

4 Tile adhesive

5 Joint mortar

6 OTTOCORD PE-B2 – The closed-cell
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The use of a suitable OTTO primer is recommended to improve the adhesion of OTTO silicone seals.
Please refer to the technical data sheets for product-specific instructions.

Preparing the substrates with the OTTOFLE X system

Underlying surfaces on which the OTTOFLEX sealing strip is to be laid must always be checked for levelness, stability and moisture. Components which impair adhesion must be removed from the surface. We recommend priming absorbent underlying surfaces with OTTOFLEX deep primer. For smooth underlying surfaces (eg. glazed tiles) we recommend a scratch coat using a highly polymer enriched tile adhesive. Please refer to the technical data sheets for the correct residual moisture of the underlying surface.

The underlying surface must be clean, stable and flat. The adhesive used with the OTTOFLEX sealing strip must be compatible with the type of underlying surface and must adhere to the fleece fabric in the OTTOFLEX sealing strip. In accordance with DIN 12044 a thin-bed mortar with a quality level of at least C2 must be used. The OTTOFLEX sealing strip must be cut to size before use (overlaps of 5 cm must be added on).

The use of OTTOCOLL M500 for watertight bonding of overlapping areas will fulfill the requirements of the following standards: the water exposure classes W0-1, W1-1, W2-1, and W3-1 of the DIN 18534, the moisture resistance classes A and C of the abP, as well as A0 and B0 of the ZDB regulations. In areas where the moisture resistance class A0 of the ZDB (or W3 of the ÖNORM B 3407) applies, bonding can also be carried out (with at least 5 cm overlap) using a thin-bed mortar, minimum class C2.

The following C2 adhesives have been certified according to abP as suitable for use in combination with OTTOFLEX Sealing Strip:

- **Ardex X 7 G PLUS**
- **Botament M 21 Classic**
- **Codex Power CX 1**
- **Mapei Keraquick S1**
- **PCI FT Extra**
- **PCI Flex Mortar S1**
- **Schönox Q6**
- **Sopro Tile Adhesive No 1**

Please refer to the current list of all certified C2 adhesives on our OTTO Website!


You can find topical videos on our
YouTube channel on
www.youtube.de/ottochemievideos

Measure and cut materials

The OTTOFLEX Sealing Strip must be cut to the final size before application.

Apply the adhesive

The tile adhesive must be applied to the entire underlying surface with a 4 x 4 mm serrated trowel (note the adhesive's setting time).

Press sealing strip into adhesive

Press the full area of the OTTOFLEX sealing strip into the adhesive. To press it in, we recommend the smooth side of the serrated trowel or a smoothing trowel, which is moved diagonally over the OTTOFLEX sealing strip while pressing. It is vital to avoid trapped air and creases while doing this.

Joints must overlap by at least 5cm

Edges of the sealing strips must be joined with an overlap of at least 5cm, using OTTOCOLL® M 500. The system-tested adhesive must be evenly applied so that when the sealing strip is pressed in, a small amount appears at the edges. Make sure that the tile adhesive and the strip adhesive do not mix. The markings on the sealing strips simplify the work. Press over the bonded area with a spatula and smooth off any surplus adhesive. In corners the sealing strips are butt-joined with a 5mm gap. Special corners and sealing tapes are to be used here. The sealing strips along the floor are laid following the same principle. Here too, a gap of 5 mm should be left on the inner edge to avoid formation of creases or pockets.

Tightly bond the overlapping area

For interior and exterior corners, edges as well as pipe ducts, products from the OTTOFLEX System can be used (interior/exterior corners, flexible/floor sealing sleeves as well as sealing tape).
These must all be fully bonded with OTTOCOLL® M 500. These OTTOFLEX products are fitted after the OTTOFLEX Sealing Strip has been put into place.

OTTOFLEX Bath edge sealing tape

DIN 18534 stipulates that a sealant alone provides insufficient waterproofing between either bath or shower and the wall. To permanently seal the areas behind or under baths and showers it is necessary to fit bath edge sealing tape or to extend the composite seal under the bathtub or shower tray.

The OTTOFLEX Bath Edge Sealing Tape is a fleece tape with a plastic butyl layer, easy to handle and very reliable. The adhesive tape is mounted on the rounded edges of the tub and, when this has been put into position, the tape is shaped to the corner to form a perfect seal.

Clean the edge of the bathtub/ shower tray

Before sealing the shower tray, the edges must either be cleaned with OTTO Cleaner T or cleaned and primed in one step using OTTO Cleanprimer 1101.

Mount bath edge sealing tape

Mount the OTTOFLEX Bath Edge Sealing Tape without creases or air pockets. Use a roller to press the OTTOFLEX Bath Edge Sealing Tape firmly on.

OTTOFLEX Sound insulation tape

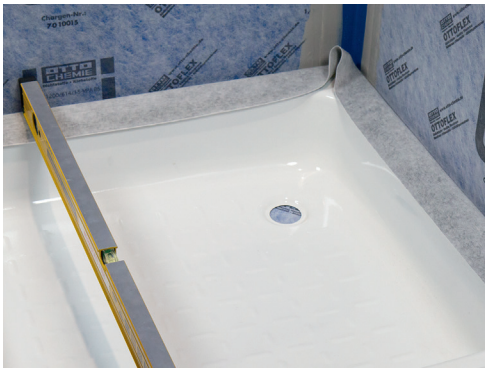
The self-adhesive OTTOFLEX Sound Insulation Tape is fixed to the clean edge of the bath tub/ shower tray.

Should a bath edge sealing tape already be in position, the sound insulation tape goes over this, i.e. on the reverse side of the bath edge sealing tape.

Attach the sound insulation tape

If required, mount the sound insulation tape.

Put bathtub/ shower tray into position



Protect the areas around the edge with masking tape to avoid soiling. Fold in the OTTOFLEX bath edge sealing tape and install the shower/ bath.

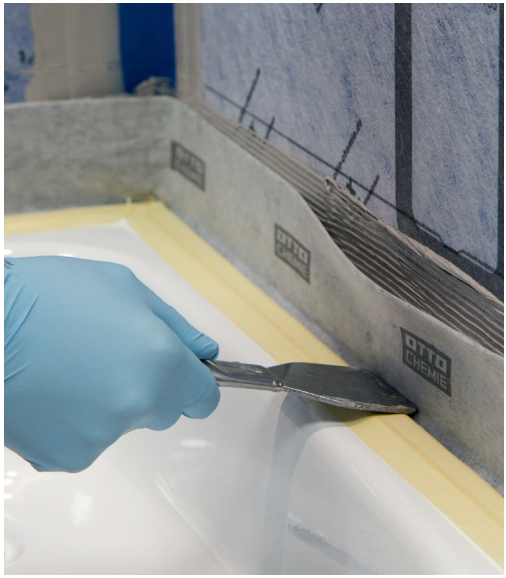
Bonding the bath edge sealing tape

Apply OTTOCOLL® M 500 in wavy lines.

Smooth the adhesive

Smooth the adhesive with a toothed spatula.

Press on the bath edge sealing tape

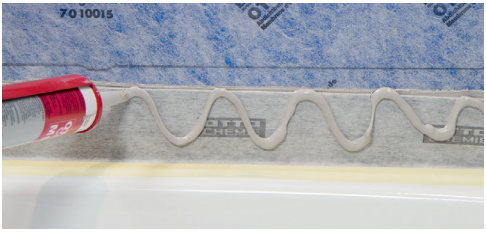


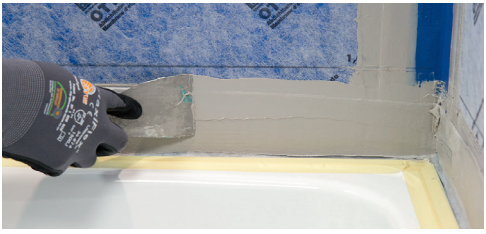
Press on the OTTOFLEX Bath Edge Sealing Tape with a smooth edged spatula and work it into the adhesive.

Shaping corners

Shape the corners by pushing the OTTOFLEX Bath Edge Sealing Tape into the corner by hand.
The OTTOFLEX Bath Edge Sealing Tape is flexible and can be pressed in perfectly.

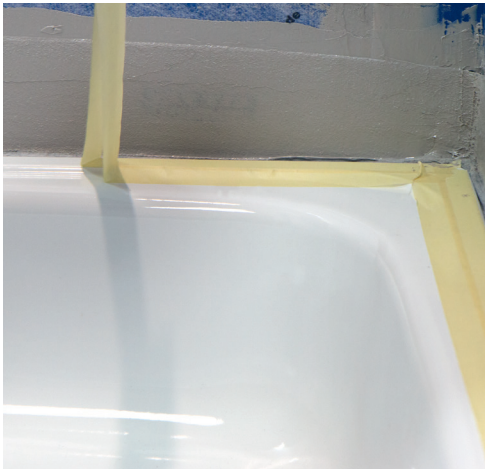
Sealing the tape





Cover the OTTOFLEX Bath Edge Sealing Tape with an impermeable layer of OTTOCOLL® M 500.

Remove masking tape



Remove masking tape from the edge of the bathtub/ shower tray.

The OTTOFLEX Bath Edge Sealing Tape must always be fitted after the first application of OTTOFLEX Slurry Seal Coating or OTTOFLEX Protective Coating and then reworked and embedded in the second application.

OTTOFLEX Protection Tape

The thin and flexible texture of the OTTOFLEX Protection Tape means it is barely noticeable and it is easy to handle. Its wide protective strip prevents the possibility of cutting into the composite seal (such as the OTTOFLEX Sealing Strip) specified in DIN 18534-1, should renovation work be undertaken.

No additional adhesive is necessary.

Using the protection tape

The OTTOFLEX Protection Tape is mounted under the tiles. The OTTOFLEX Protection Tape is self-adhesive so no additional adhesives are required. The thin tape is barely noticeable, extremely flexible and easy to handle.

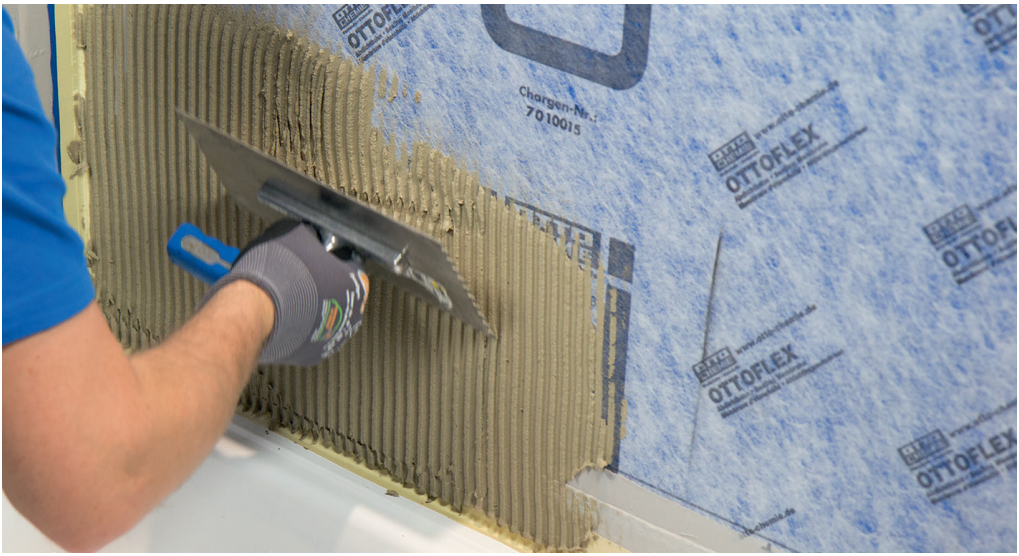
Fixing tape to bathtub/shower tray

Stick the OTTOFLEX Protection Tape onto the tub/tray

Fixing tape to floor

Stick the OTTOFLEX Protection Tape onto the floor and press down with a spatula.

Applying the tile adhesive



Coverings can be applied only after the OTTOFLEX Sealing Strip has been bonded with all overlaps, corners and joins. It is not necessary to wait.
To lay tiles using the thin-bed method, apply the tile adhesive directly to the OTTOFLEX sealing strip.

Laying the tiles

Place the tiles so that the reverse side is completely covered in adhesive. The choice of adhesive depends on the laying method and the expected load.

General building Inspection Certificate (abP) – high load

Resistance class	Exposure	Example of use
A	High exposure to water without pressure, indoor areas	Walls and floors in public showers, borders of swimming pools
B	High exposure to constant water pressure from the inside, indoor and outdoor areas	Wall and floor surfaces in swimming pools
C	High exposure to water without pressure and to chemical substances, indoor areas	Wall and floor surfaces in rooms with limited chemical load

Central Association of the German Building Trade (ZDB) – moderate load

Resistance class	Exposure	Example of use
A0	Moderate exposure to water without pressure, indoor areas	Walls and floors in bathrooms, in private homes and hotels
B0	Moderate exposure to water without pressure, outdoor areas	Balconies and patios (not above rooms that are in use)

Sealing materials	Accessories
• OTTOFLEX Protective Coating ❶ • OTTOFLEX Slurry Seal Coating • OTTOFLEX Sealing Strip + OTTOCOLL® M500	• OTTOFLEX Sealing Tape • OTTOFLEX Project Sealing Tape • OTTOFLEX Sealing Sleeve • OTTOFLEX interior and exterior Corner
• OTTOFLEX Slurry Seal Coating	
• OTTOFLEX Sealing Strip + OTTOCOLL® M500	

❶ OTTOFLEX Protective Coating is only certified for use on wall surfaces with high exposure to water without pressure in indoor areas (for example walls in public showers) in accordance with the utility class A of the abP

Sealing materials	Accessories
• OTTOFLEX Protective Coating • OTTOFLEX Slurry Seal Coating • OTTOFLEX Sealing Strip + OTTOCOLL® M500	• OTTOFLEX Sealing Tape • OTTOFLEX Project Sealing Tape • OTTOFLEX Sealing Sleeves • OTTOFLEX interior and exterior Corner
• OTTOFLEX Slurry Seal Coating • OTTOFLEX Sealing Strip + OTTOCOLL® M500	

The following categories in DIN 18534 correspond to the level of water exposure:

- W – water exposure
- 0-3 – level of exposure
- I – interior

Water exposure class	Water exposure		Example of use [a] [b]
W0-I	**low**	surfaces not often exposed to water spray	• Walls over washbasins in bathrooms and sinks in kitchens in private houses • Floors without drain in private houses e.g. in kitchens, utility rooms, guest WCs
W1-I	**moderate**	surfaces often exposed to water spray, seldom exposed to service water or a back-up of water	• Walls over bathtubs and in showers and bathrooms • Floors with drain in private houses • Floors with/without drain and with low water exposure from shower area
W2-I	**high**	surfaces often exposed to water spray and/or service water, occasionally intensified by a back-up of water, particularly on floors	• Walls of showers in sport facilities/ industrial buildings [c] • Floors with drain and/or gutters • Floors in rooms with level-access showers • Walls and floors of sport facilities and industrial buildings [c]
W3-I	**very high**	surfaces often, or for long periods, exposed to water spray or service water and/or water from intensive cleaning, intensified by a back-up of water	• Surfaces of areas surrounding swimming pools • Surfaces of showers and shower facilities in sport facilities or industrial buildings • Surfaces in industrial buildings [c] e.g. industrial kitchens, laundries or breweries etc.

[a] It is sometimes advisable to upgrade areas which are close by and not protected by structural measures (such as shower partitions) to the next level.

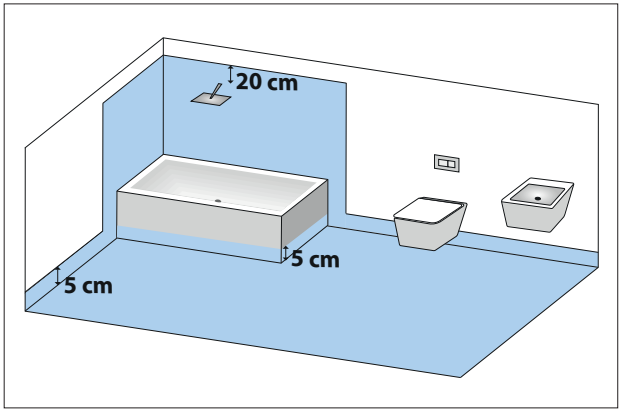
[b] In some cases, more than one class may apply, depending on the estimated water exposure.

[c] Surfaces to be sealed which might possibly be exposed to chemical influences, such as acids or alkaline solutions, must be treated with chemical-resistant sealants i.e. reactive resins.

The abP test certificates also provide valid certification for the new DIN standards 18534

Category of crack	Sealing materials	Accessories
R1-I	• OTTOFLEX Protective Coating for floor and wall seals • OTTOFLEX Slurry Seal Coating • OTTOFLEX Sealing Strip + OTTOCOLL® M 500	• OTTOFLEX Sealing Tape • OTTOFLEX Project Sealing Tape • OTTOFLEX Flexible Sealing Sleeves • OTTOFLEX Floor Sealing Sleeves • OTTOFLEX Interior and Exterior Corners • OTTOFLEX Bath edge sealing tape
R1-I	• OTTOFLEX Protective Coating for floor and wall seals • OTTOFLEX Slurry Seal Coating • OTTOFLEX Sealing Strip + OTTOCOLL® M 500	• OTTOFLEX Sealing Tape • OTTOFLEX Project Sealing Tape • OTTOFLEX Flexible Sealing Sleeves • OTTOFLEX Floor Sealing Sleeves • OTTOFLEX Interior and Exterior Corners • OTTOFLEX Bath edge sealing tape
R1-I	• OTTOFLEX Protective Coating for wall seals • OTTOFLEX Slurry Seal Coating • OTTOFLEX Sealing Strip + OTTOCOLL® M 500	• OTTOFLEX Sealing Tape • OTTOFLEX Project Sealing Tape • OTTOFLEX Sealing Sleeves • OTTOFLEX Floor Sealing Sleeves • OTTOFLEX Interior and Exterior Corners
R1-I	• OTTOFLEX Slurry Seal Coating c) • OTTOFLEX Sealing Strip + OTTOCOLL® M 500 c)	• OTTOFLEX Sealing Tape • OTTOFLEX Project Sealing Tape • OTTOFLEX Sealing Sleeves • OTTOFLEX Floor Sealing Sleeves • OTTOFLEX Interior and Exterior Corners

Special Requirements



- If only the floor ist to be sealed (W1-1/ W2-1), the insulation must extend at least 5cm up any adjoining, upright structural elements. (Skirting board or tiles will later cover this).
- The insulation must be at least 20 cm higher than the highest tap connection.
- W0-1 surfaces do not have to be sealed if water resistant materials are used.

Subsurfaces

Subsurfaces sensitive to water i.e. gypsum or gypsum and lime plaster, building materials containing plaster or anhydrite screed may only be used in the water exposure classes W0-1 and W1-1.

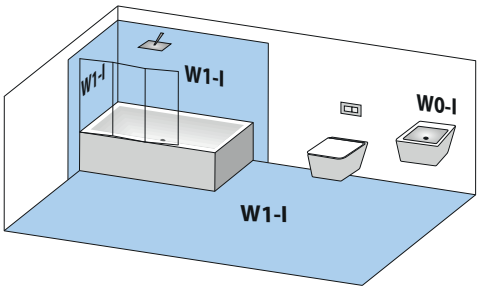
For the water exposure classes W2-1 and W3-1, subsurfaces on a cement basis are to be used, such as concrete, lime-cement plaster, mineral building slabs etc.

DIN 18534 Classification of Cracks

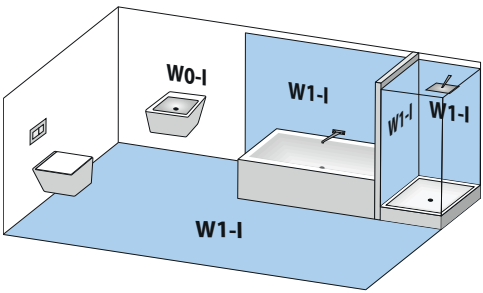
In addition to the new water exposure classes, DIN 18534 also specifies categories of cracks.

In choosing the sealing method, the estimated variation of the width of a crack or the new formation of cracks must be taken into account. (Existing cracks must be professionally repaired) Sealing strips or liquid compound sealants under tiles and slabs may only be used on subsurfaces of category R1-I.
For interior work, it can usually be assumed that category R1-I applies.

Category of crack	Maximum width variation	Sub-surfaces
R1-I	up to 0,2mm	reinforced concrete, brickwork, screed, plaster
R2-I	up to 0,5mm	joints between jumbo bricks, load-carrying closed joints between plate-formed coverings
R3-I	up to 1,0mm plus up to 0,5mm displacement	contact areas of brickwork

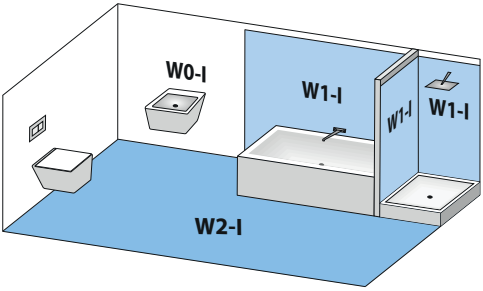


Private bathroom with bath, integrated shower and protection screen

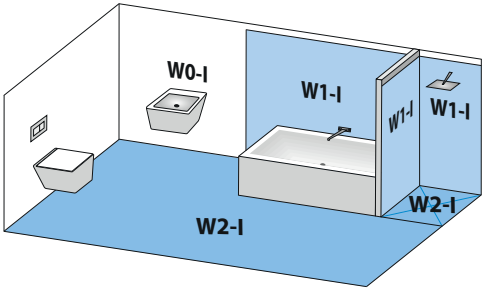


Private bathroom with bath (no showerhead) and shower tray with shower partition

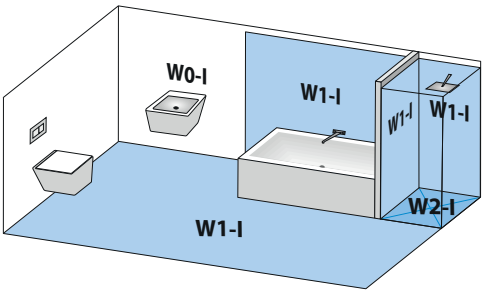
Please note:
Floor sealing is necessary even with a shower partition



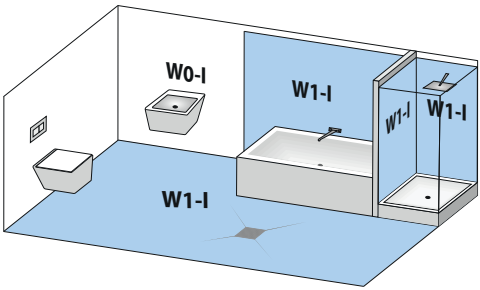
Private bathroom with bath (no showerhead) and shower, no shower partition



Private bathroom with bath (no showerhead) and level-access shower, no shower partition

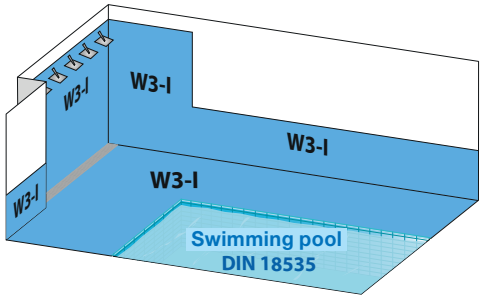


Private bathroom with bath (no showerhead) and level-access shower with shower partition

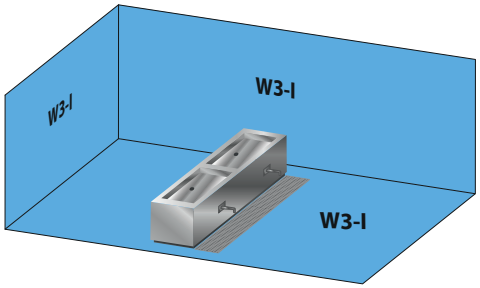


Private bathroom with bath (no showerhead) and shower tray with shower partition; floor drain

Please note
The floor area of a private bathroom with sufficient protection against water spray from the shower (not a curtain) can be categorised as W1-I



Shower facility and swimming pool area



Industrial kitchen

In addition to the interior sealing work regulated by DIN 18534, the OTTOFLEX System is, as previously, approved for other uses covered by the new standard DIN 18535.

Existing abP test certificates are valid for these standards also.

DIN 18535 – Sealing Tanks and Pools

The water exposure classes are again the determining factor in DIN 18535. In addition, there are further specifications with regard to cracks and the location of the tank.

Water Exposure Classes for Tanks

Water exposure class	Filling level	Sealing materials
W1-B	≤ 5 m	OOTTOFLEX slurry seal coating up to 4m filling level (water column) in accordance with abP ❷
W2-B	≤ 10 m	
W3-B	> 10 m	

Category of Crack in accordance with DIN 18535		Sealing materials
R0-B	no variation of crack width or fresh crack formation	OTTOFLEX Slurry Seal Coating ❷
R1-B	freshly formed cracks or variation of crack width up to max. 0,2mm	OTTOFLEX Slurry Seal Coating ❷

Location of Tank in accordance with DIN 18535		Sealing materials
S1-B	outdoor tank not attached to a building structure (seal of tank serves to prevent water content from leaking)	OTTOFLEX Slurry Seal Coating ❷
S2-B	indoor tank or outdoor tank which adjoins and is attached to a building structure (here the seal protects the building from the water content as well as preventing leakage)	OTTOFLEX Slurry Seal Coating ❷

❷ OTTOFLEX Sealing Tape, OTTOFLEX Project Sealing Tape, OTTOFLEX interior and exterior Corners and OTTOFLEX Sealing Sleeves are approved for composite seals in accordance with DIN 18535 for the water exposure class W1-B, the category of crack R0-B and R1-B and for the tank locations S1-B and S2-B.

Professional tip

DIN 18534 applies if borders of swimming pools are to be sealed.

ÖNORM 3407 applies to Austria

Resistance class	Exposure	Examples of use
W1	Surfaces with infrequent, short term exposure to cleaning water	Private houses: living quarters, corridors, WCs, offices etc
W2	Surfaces with infrequent, short term exposure to cleaning water, water spray and service water	Industrial facilities: WC facilities Private houses: kitchens or similarly used rooms
W3	Surfaces with frequent, short term exposure to cleaning water, water spray and service water	Wall surfaces without floor-level drainage, floor surfaces without drainage e.g. bathrooms, shower trays, floor surfaces in WC facilities without drainage, porches
W4	Surfaces with frequent, prolonged exposure to cleaning water, water spray and service water	Wall surfaces with floor-level drainage, floor surfaces with drainage e.g. bathrooms, showers with level access, laundry rooms, floor surfaces in WC facilities with floor drainage
W5	Surfaces with constant, prolonged exposure to cleaning water, water spray and service water and/or chemical substances	Swimming pool borders, shower facilities, commercial industrial production areas e.g. laboratories, food-processing halls, industrial kitchens
W6	Exterior areas	Balconies, patios, loggias, stairs, open pergolas

Utility classes of the ÖNORM 3407

Based on the tests necessary for a General Building Authority test certificate (abP) according to PG-AIV-F and PG-AIV-B and the established areas of use, our products OTTOFLEX Protective Coating, OTTOFLEX Slurry Seal Coating and OTTOFLEX Sealing Strip are approved for use in the following utility classes of the ÖNORM 3407.

Sealing materials	Accessories
• OTTOFLEX Protective Coating • OTTOFLEX Slurry Seal Coating • OTTOFLEX Sealing Strip + OTTOCOLL® M500	• OTTOFLEX Sealing Tape • OTTOFLEX Project Sealing Tape • OTTOFLEX Wall Sealing Sleeves • OTTOFLEX Floor Sealing Sleeves • OTTOFLEX Flexible Sealing Sleeves • OTTOFLEX interior and exterior Corners • OTTOFLEX Deep Primer (W1+W2) • OTTOFLEX Primer (W1+W2) • OTTOFLEX Adhesive Primer
• OTTOFLEX Slurry Seal Coating (except in areas with high level of chemical exposure) • OTTOFLEX Sealing Strip + OTTOCOLL® M500	
• OTTOFLEX Slurry Seal Coating • OTTOFLEX Sealing Strip + OTTOCOLL® M500	

OTTOSEAL® S 100

The premium bathroom silicone

Unsurpassed processing characteristics for classic sanitary applications in a unique range of colours.

OTTOSEAL® S 121

The low odour premium bathroom silicone

For use in odour-sensitive areas.

OTTOSEAL® S 70

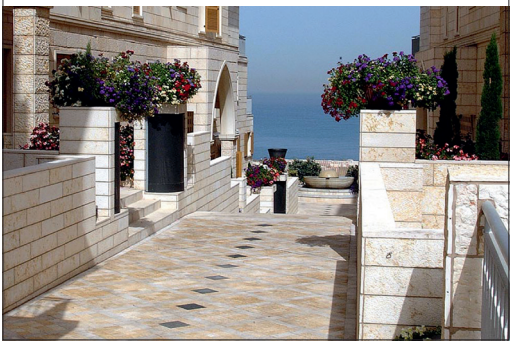
The premium natural stone silicone

With a guarantee against migratory staining in natural stone, it is available in many glossy and matt colours as well as stonelike appearances.

OTTOSEAL® S 80

The premium alkoxy natural stone silicone

The low-odour natural stone silicone with guarantee against migratory staining.



OTTOSEAL® S 130

The alkoxy sanitary silicone with ecologically harmless OTTO Fungitect® Silver Technology

The alkoxy-based silicone with OTTO Fungitect® Silver Technology offers protection against mould in regulated areas of application.

OTTOSEAL® S 140

The hotel and spa silicone with double protection against mould

Highly-active fungicide combined with OTTO Fungitect® Silver Technology offers high-quality and long-lasting protection against mould for silicone joints under very high stress.

OTTOSEAL® S 18

The swimming pool silicone

For underwater joints – extremely resistant against continuous moisture and chlorine.

Anti-Mildew-Spray

Anti-Mildew-Spray

Removes mildew, fungus, algae and moss reliably and permanently.

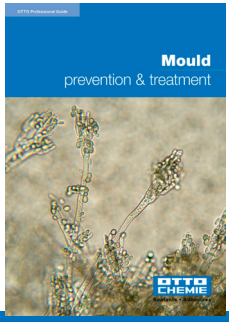
Mould – perfect prevention and treatment

From a biological point of view, mould belongs to the fungus family. There are approx. 250,000 species in the family and around 50,000 of them belong to the subspecies of mould. Fungal spores are part of our habitat, just like bacteria, and are extremely undemanding. They thrive in humid conditions and live off organic materials such as soap residue and skin particles.

A so-called biofilm, a thin, slimy comprising of fungal spores, bacteria, soap residue and skin particles, is ideal for the formation of mould on expansion and connection joints in sanitary areas. Regular cleaning of the joints and a correctly applied sanitary sealant (without concave dips) equipped with a high-quality fungicide are important factors.

The formation of mould can be prevented by ensuring a constant relative humidity level of under 70%, something that can only be achieved with adequate ventilation.

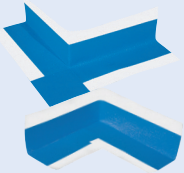
You can find tips, tricks and further information on professional joints in the OTTO professional guide „ Joints in Sanitary Facilities, the perfect seal for perfect care“

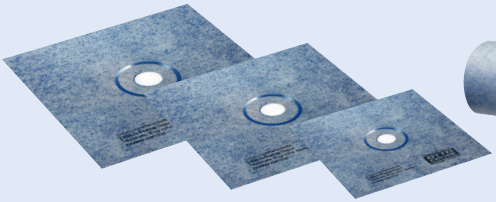


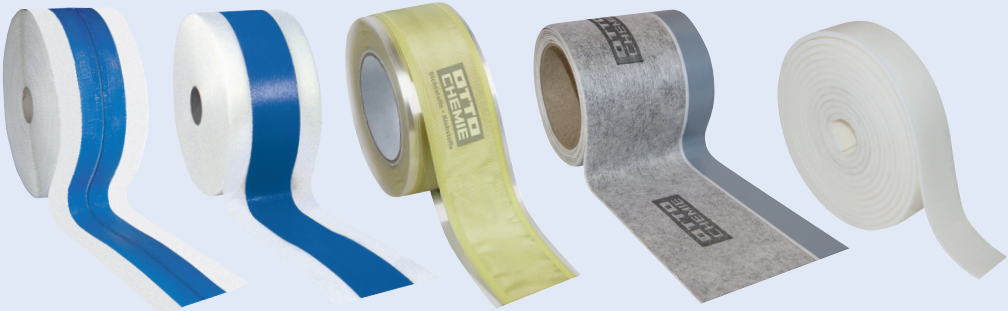
You can find tips, tricks and further information on the subject of mould in the OTTO professional guide „ Mould, perfect prevention and treatment“

OTTOFLEX System

Waterproofing system under ceramic and natural stone coverings, for interior and exterior use







OTTOFLEX Adhesive primer

Adhesion-enhancing primer for floor and walls

OTTOFLEX Deep Primer

Solvent-free primer for floors and walls

OTTOFLEX Primer

Synthetic resin dispersion based on styrene butadiene

OTTOFLEX Protective Coating

Synthetic resin dispersion based on styrene butadiene

OTTOFLEX Slurry Seal Coating

1-component, flexible composite sealing

OTTOFLEX Sealing Strip

Polyethylene sealing strip with double non-woven fabric

OTTOFLEX Sealing Tape

Fabric reinforced elastomer tape

OTTOFLEX Project Sealing Tape

Fabric reinforced elastomer tape

OTTOFLEX Bath edge sealing tape

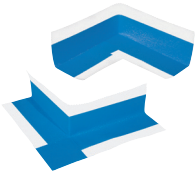
Polypropylene fleece with butyl rubber

OTTOFLEX Protection Tape

Self-adhesive protection tape, tight-edged woven with double fabric in the middle

OTTOFLEX Sound insulation tape

One-sided self-adhesive PE foam tape with PE peel-off foil

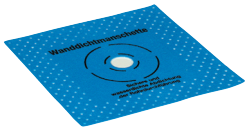


OTTOFLEX Interior and Exterior Corner Tape

Elastic corner tape for permanent waterproof sealing of exterior and interior corners under tiles, boards and ceramic coverings

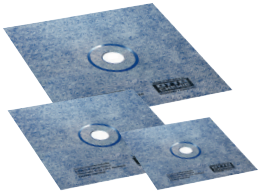
OTTOFLEX Floor Sealing Sleeve

Elastic sealing sleeve used in floor areas for permanent waterproof sealing around pipe ducts under tiles, boards and ceramic coverings



OTTOFLEX Wall Sealing Sleeve

Elastic sealing sleeve used on walls for permanent waterproof sealing around pipe ducts under tiles, boards and ceramic coverings



OTTOFLEX Flexible Sealing Sleeve

Special elastomer sleeve with integrated expansion zone for permanent waterproof sealing of pipe ducts (dimensions: 20 - 35 mm) under tiles, boards and ceramic coverings.

OTTOCOLL® M500

PREMIUM

The water-resistant premium hybrid adhesive/sealant

1-component hybrid polymer STP adhesive and sealant

For indoor and outdoor application

Download the information material from our website or order online

OTTO offers not only professional quality sealants and adhesives, but also provides the necessary information on choice of product, correct workmanship and maintenance of the joints. You can download as PDF documents, browse through our website or order printed copies.

OTTO Professional Guides

Here the professional workman will find concise information on various topics such as „Saving Energy with perfect seals“ or „Mould, prevention and treatment“.

Product Catalogue for Buildings

The OTTO catalogue provides information on the properties and various applications of the sealants and adhesives available from stock, as well as supplementary products.

OTTO Product Information

Flyers with the most important information on the OTTO products

OTTO Professional Tips

Useful hints and tips on all aspects of sealing and bonding; the practical A-4 format is ideal for printing

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For information relating to certification marks, please see www.otto-chemie.de under the heading „Information on Certification Marks". The requirements and test criteria of the DGNB and LEED can be found on www.dgnb.de and www.german-gba.org. Please note that these companies do not evaluate our individual products, but the sustainability as a whole of each complete building project.

The information in the present document corresponds to the status quo on going to print, refer to the index. With a new edition this edition becomes invalid. Due to the many possible influences during and after application, the customer always has to carry out trials first. Please observe the respective technical data sheet! This information is available on the Internet at www.otto-chemie.com. Errors and typographical errors are excepted.

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Sealants • Adhesives

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