PROLINE

in the system with products from companies: Codex, Bostik and Mapei.

Decoupling and sealing film with impact sound insulation



Use and applications:

PROSECURE TriTec is a decoupling film with impact sound insulation and sealing function that can be used universally. Due to the offset square air channel structure in the **PROSECURE TriTec**, the air channels remain open when the web is adhered and ensure pressure equalisation in the floor system setup. This means that walkable screeds can be laid early. In addition, PROSECURE TriTec can be used as bonded sealing membrane in connection with the PROFOLIO sealing tapes, certified by building authorities (abP), for moderate and high water impact. PROSECURE TriTec is used under tiles and natural stone in domestic as well as commercial dry and damp locations on floor surfaces inside and outside. When used in the application area as decoupling mat, **PROSECURE TriTec** covers the following categories in accordance with the ZDB publication (Central Association of the German Construction Industry) on decoupling systems in indoor areas:

EK-W-AIV-S EK-G-AIV-S EK-M-AIV-S EK-H-AIV-S PROSECURE TriTec protects surfaces that are sensitive to moisture, such as wooden floors, magnesium- or gypsumbased screeds against excessive mixing water from the grout. When laying large-format tiles and slabs, the moisture from the mixing water of the thin-bed mortar and joint substances, which is slow to dry, is sufficiently shielded from the supporting surface by PROSECURE TriTec. For underfloor heating, PROSECURE TriTec can balance the heat distribution across the surface via the channels below. PROSECURE TriTec is used in new buildings as well as renovations.

- As decoupling, support and protective layer
- As sealing system certified by building authorities for the water performance classes WO-I to W3-I (in accordance with DIN 18534, the web remains a special design in W3):
- Approx. 7 dB impact sound reduction (high degree of impact sound reduction under ceramic floorings in accordance with DIN EN ISO 140-8).
- For tile and slab flooring from natural, artificial and cast stone.
- In domestic as well as commercial dry and damp locations on floor areas.
- Over concrete, anhydrite and magnesium screed, in-situ concrete surfaces, prefabricated concrete components, double-floor or wooden grille structures.

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- Over mixed substrates.
- To compensate or reduce thermal states of stress due to differences in the heating of surfacing segments from underfloor heating or sunlight.
- To compensate or reduce states of stress of evanescent substrates (e.g., concrete).
- For laying tiles and slabs over unheated mastic asphalt screeds.

Product advantages:

PROSECURE TriTec is easy to use and can be easily cut with a stable cutter knife or carpet shears. Despite high decoupling capacity, PROSECURE TriTec has a very low installation height. The fleece applied at the top or bottom enables good bonding of the mortar or adhesive with the supporting substrate as well as the top laying area. Due to the special structure of the web, 50% less tile adhesive is used on average compared to similar products. The time saving is also a crucial factor, as the structure of the web can be filled more guickly with adhesive. Stresses present in the substrate or occurring at a later stage are mostly compensated in the horizontal plane within the PROSECURE TriTec. The floor covering of ceramic tiles, natural or concrete stone as well as cast stone is protected against any damage which might otherwise result from this. PROSECURE TriTec can be used on young cement screed (please refer to the section on use). Overall, PROSECURE TriTec increases the damage-free condition of problematic surfaces.

Delivery:

1.00 m wide.
Item no.: 93209
Item no.: 93208

Technical data:

PROSECURE TriTec	
Sealing, impact noise insulation a	and decoupling film
Material	Polyethylene, laminated with
	polypropylene fleece on both sides
Colour	Transparent fleece at the top
	Membrane - green
	Grey fleece at the bottom
Width	1 m (+/–5 mm)
Thickness	approx. 1.8 mm (+/-0.2 mm)
Weight	approx. 850 g/m
Bond strength (DIN EN 1348)	0.22 N/mm ²
Thermal resistance R	0.029 m² K/W
Heat conductivity	0.062 W/mk
Impact sound insulation	≤7 db
Temperature resistance	−30 °C − +90 °C

Storage and transport:

Rolls must be stored and transported in a cool and dry environment protected from sunlight and contaminations. Store rolls preferably upright. The storage duration is 24 months under these conditions.

Environment and disposal:

Sections and residues can be disposed of with the residual waste at usual domestic quantities, added to industrial waste or plastic recycling in recycling centres.

Information on hazardous goods and substances:

No special measures required.

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Required additional products:

PROBAND S butt-joining tape:

Туре	Special glass fibre mesh,	laminated with
	centred self-adhesive stri	p
Colour	White	
Thickness	approx. 0.7 mm	
Total width	approx. 75 mm (+/-2 mn	n)
Rolls with	25 m	ltem no.: 93722

PROFOLIO sealing tape corners:

Туре	Highly flexible, transverse-elastic tri-laminate, fleece backed, both sides
Colour	Green
Thickness	approx. 0.7 mm
Total width	approx. 60 + 60 mm
Inside corner length of leg	approx. 120 mm
Outside corner length of leg	approx. 110 mm
Carton with	25 units
Inside corner	ltem no.: 93518
Outside corner	ltem no.: 93519

PROFOLIO sealing sleeves:

Туре	Highly flexible, transverse-elastic		
	tri-laminate, fleece ba	cked, both sides	
Colour	Green		
Thickness	approx. 0.7 mm		
Wall sealing collar incl. 15 m	m hole pitch	ltem no.: 93512	
Size	120 x 120 mm		
Carton with	25 units		
Floor sealing collar	ltem no.: 93510		
Size	425 x 425 mm		
Carton with	10 units		

PROFOLIO sealing sleeves:

Туре	Highly flexible, transverse tri-laminate, fleece backe	e-elastic ed, both sides
Colour	Green	
Thickness	approx. 0.7 mm	
Wall sealing collar incl. 15 mm	n hole pitch	ltem no.: 93512
Size	120 x 120 mm	
Carton with	25 units	
Floor sealing collar	ltem no.: 93510	
Size	425 x 425 mm	
Carton with	10 units	

PROSTRIP S edge insulating strips:

Туре	Fleece laminated PE edge in	nsulating strips with
	self-adhesive and clinging te	echnique
Colour	Green	
Thickness	approx. 8 mm	
Total width	approx. 150 mm (+/-2 m	nm)
Roll with	25 m	ltem no.: 93520

PROFOLIO sealing tape:

Туре	Highly flexible, transverse-elastic tri-laminate fleece backed, both sides			
Colour	Green			
Thickness	approx. 0.7 mm			
Total width	approx. 120 mm (+/-2 mm)			
Roll with	25 m	ltem no.: 93131		
	50 m	ltem no.: 93519		

Construction chemical products:

The manufacturer's technical data sheets must be observed

Adhesive:

Product:	Manufacturer
Codex CX3	Codex GmbH
Bostik Arda Fix Flex	Bostik GmbH
Mapei Ultra Light S1	Mapei GmbH

Barrier coatings:

Codex NC 210 1K	Codex GmbH
Ardatec 1K Flex	Bostik GmbH
Monolastik Ultra 1K	Mapei GmbH

Only use adhesives and barrier coatings from the same manufacturer.

Ottocoll M500:

Material	Hybdrid adhesive and sealing
	compound once-component
	adhesive and sealing compound
	on hybrid-
	polymer STPU basis
Colour	White
Delivery	Cartridge of 310 ml each
	ltem no.: 93514

The technical data sheets of the manufacturer Hermann Otto GmbH must be observed.

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Preparation / assessment of the surface:

The surface must be level, clean, dry, devoid of loose or easily detachable materials as well as sufficiently adhesive, rigid and pressure-resistant in accordance with the intended load. The evenness of the surface must meet the required quality, based on the completed flooring. Levelling work must be completed before the laying of PROCEURE TriTec. The surface must be sufficiently rigid and must distribute the load across its whole area. Any existing cracks in the surface must be sealed and dowelled correctly. Cracks below 0.5 mm width can be built over unsealed, as long as it is ensured in the long-term that no offset is formed on the crack edges, or larger crack propagations are formed. Backgrounds must be assessed and prepared according to the specialist regulations in place. The manufacturer's specifications must be observed with regard to the use of construction chemical products. Fit PROSTRIP "S" edge strips to all adjoining components and mounting parts to prevent coupling and sound bridges. Surfaces must be prepared according to the intended evenness, gradient or firmness. Screeding compounds and balancing mass must be firm, dry and hardened. The ideal room and surface temperature is between 18 °C and 25 °C. It is recommended to create climatic conditions. If no levelling work is carried out, glue the PROSTRIP "S" edge strip directly onto the already laid **PROSECURE TriTec**. When applying the grout for **PROSECURE TriTec**, make sure that no grout bridges are formed to walls and components (maintain distance).

Preparatory work / construction site planning:

Depending on type and structure, the prepared surface is to be primed or pretreated for subsequent gluing of the mat, adapted to the mortar or adhesive used here. Low-shrink thin-bed mortar of at least grade C2 S1 in accordance with DIN EN 12004 is to be used for gluing **PROSECURE TriTec**. Fas-setting thin-bed mortar with low water requirement and largest possible water binding is preferable. It enables faster continuation of work on the laid webs. The suitable adhesives or mortar depend on the type of the surface, the stress parameters, and must encase the fibres of the fleece bottom well. Should you be uncertain or have concerns about the tolerances of materials, you should conduct your own pretests.

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Using PROSECURE TriTec as decoupling and impact sound insulation:

Place **PROSECURE TriTec** with the labelled side upwards, and cut according to local conditions. Brush the thin-bed mortar onto the substrate to cover all of the web width using a 6 mm square toothing. Lay PROSECURE TriTec edge to edge within the laying time of the tile adhesive. Joints of approx. 1 – 3 mm should remain clear in the area of the web edges. Insert the webs cut to size immediately afterwards and press them down well. Roll them up with a suitable carpet roll or rub them down with a flat smoothing trowel or fender. Only brush on as much adhesive/mortar as required for the webs to be inserted within the adhesion time. Make sure that the mat creates a solid bed as much as possible. The mats are to be separated in the area of construction, connection and boundary joints at the intended width of the joint. Joints at web ends or cuts must be laid with an offset of at least 25 cm to adjoining joints (no cross joints). In the area of the joints, make sure that no grout or adhesive is pushed up. Strip the brushed on mortar/adhesive transversally along the already laid web edge, preferably using a scraper. Once the webs are laid, glue the PROBAND S butt-joining tape centrally over the joints using the laminated self-adhesive strip. Make sure that the self-adhesive strip covers the open joint area well. Then use thin-bed mortar to apply and smooth the butt-joining tape over the entire area of the webs free of voids. When carefully walking on the laid mats, which is necessary, make sure not to cause any bubbles or elevations. To protect the laid mats against damage or detachment, lay formwork panels, running boards, expanded plastic slabs or similar in the walking and working zones. It might also be necessary to shade the area in case of strong solar radiation, i.e. for shop windows.

Using PROSECURE TriTec as bonded sealing membrane:

Only use tile adhesive and barrier coatings certified by building authorities for the sealing work. Use a 6 mm square toothing to brush on the respective tile adhesive to cover all of the web width. Then immediately insert the webs, which have been cut to fit, and press them on well; use a plastering float or smoothing trowel for rubbing down, if required. Only brush on as much mortar as required for the webs to be inserted within the adhesion time. Lay **PROSECURE TriTec** edge to edge, avoiding air bubbles and cross joints. Place PROSECURE TriTec with the labelled side upwards during installation, and cut according to conditions. All joint areas, as well as joints, inside and outside corners are glued over with the PROFOLIO sealing tapes and the respective moulded parts. The sealing tapes and moulded parts are glued with the barrier coatings for the tile adhesives respectively listed above. The tiles are subsequently laid with the adhesive that was used for gluing the **PROCEURE TRITEC**.

Reference for using **PROSECURE TriTec** as bonded sealing membrane. In the following applications, sheet-type seals are regarded as professional special designs outside of DIN 18531 or 18534. Bonded sealing membrane on balconies, loggias and walkways. Bonded sealing membrane in areas of water performance class W3-I. Bonded sealing membrane on wood substrates, which are to be assigned to water performance class W1-I. These designs should be agreed with the client in advance.

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Using PROSECURE TriTec on young cement screed:

PROSEUCRE TriTec can be laid under tiles and slabs on heated and unheated cement screed from the time of walkability, in accordance with the usage information included with these data sheets. Laying of the **PROSECURE TriTec** must be completed no later than 48 hours after walkability of the screed. The underfloor heating can be put into operation no earlier than 21 days after completion of the tile flooring. An advance floor temperature of no more than 25 °C must be set to begin with. Creation of a heating log is required.

To be observed in principle:

In accordance with the generally accepted engineering standards, currently, a waiting time of 28 days and a maximum residual moisture of \leq 2.0-2.5 CM % for laying ceramic floorings must be complied with. In case of deviations from this, the client must be notified of this in advance for legal reasons. It is recommended to agree this design type in writing in any case.

Expansion joints, building joints and connection joints:

Expansion, boundary and connection joints to adjoining walls and components are to be regularly applied in the same position and width as present in the substrate, in the plane of PROSECURE TriTec, as well as in the floor covering. There must be no coupling with mortar or grout, the flooring itself or other materials. Expansion joints or boundary joints can be closed with suitable elastic filling substances, or formed by inserting the PROCONNEX thin-bed profiles. The higher the intended mechanical load of the surface, the more stable the expansion joints should be (e.g., PROCONNEX thin-bed profiles made of metal). To protect the covering edges and for later elastic filling, double-barrelled PROFLOOR angle profiles made of metal can also be installed. Building joints are to be formed with suitable profiles, dowelled to the load-bearing cover and supported, at the height of the finished flooring. The connection joints between the flooring and the profile must be elastic and formed at sufficient width. PRONIVO compensator profiles are to be installed on the free ends of edges (ledges) to protect the raised covering edges. The PRONIVO profiles are completely glued under the **PROSECURE TRITEC** mat on the supporting substrate, and sufficiently filled with mortar, or dowelled, if required. The connection joints between the flooring and the profile must be elastic and formed at sufficient width. In case of expected high expansion and wheeled loads, it is recommended to build sufficiently stable expansion profiles directly on the supporting substrate at the height of the finished laving area, and use sufficient dowels. The connection joints between the flooring and the profile must be elastic and formed at sufficient width.

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Mechanical load-bearing capacity:

Decoupling systems decrease the mechanical load-bearing capacity of floor coverings and can thus not compensate or improve a lack of pressure resistance and flexural strength of the substrates.

Therefore, the following applies:

- The more rigid and pressure-resistant the substrate, the higher the breaking force of the tiling/slab material, the larger and thicker their format, the higher the mechanical load-bearing capacity of the floor covering against through-cutting or destruction from impact (e.g., from falling objects). Walking traffic up to medium wheeled loads do not represent a problem.
- The permissible mechanical load includes the stress group I and in parts, stress group II in accordance with the ZDB instruction sheet (Central Association of the German Construction Industry) "Heavy-load floor surfaces", October 2005 version.
- Light to medium wheeled loads can be serving trolleys, shopping trolleys or similar, or also a pushed or very slowly driving passenger car with pneumatic tyres.
- The use of pallet trucks and other industrial trucks regularly represents a high up to the highest mechanical strain. For such areas of use, PROSECURE TriTec is not suitable, unless non-pneumatic tyres are used and the intended weight is limited. The limit depends on the type of the intended tiles. The mechanical strain from rolling loads depends on the weight of the rolled load, the type, size and material of the wheel. This determines the relevant wheel press. The wheel press should not exceed 1.0 N / mm². The floor covering must be respectively stable. Floorings made of tiles and slabs are not flexible in general. For this reason, surfaces should not get deformed or sag under the loads intended for the rooms.

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Important notes:

PROSECURE TriTec is used in many different applications and combinations. The surface covering material can be of very different qualities. Therefore, our information can only be general advice. If specified areas of use are to be covered, the use must be discussed for each individual case. The smallest tile format should not be below 5x5 cm.

- In the outside area, when laying ceramic materials on PROSECUR TriTec, tiles with a thickness ≥9 mm must be used.
- Compensation layers must be principally created below
 PROSCURE TriTec.
- The surfaces to be laid on must be sufficiently rigid, pressure- and vibration-resistant for the intended load.
- Mortar tempered with polymers, dispersions and elastic fill-in and sealing substances must be able to dry completely at least once before they reach their full functionality, and the surfaces can be approved for the intended use.
- For each process it must be ensured that the mortar and adhesives already present are sufficiently hardened, and existing connections are not interfered with or destroyed by the further work.
- PROSECURE TriTec does not replace the installation of expansion joints, and the planning and compliance with sufficiently large field sizes.
- Polyethylene and polypropylene are only partially UVresistant and must be protected against direct sunlight.
- Solidly cupped screeds carry the risk of larger subsequent settling and subsidence to result in breaks of mounting parts and walls, in turn leading to floor coverings or the matt to be sheared off in the stress area.

- Wooden floors, which are used as level surface, must be screwed tight. Individual floorboards must not move against each other or away from each other by any means.
- Wooden building slabs must be firmly screwed every 40 cm in a square, and the joints must be firmly glued and screwed with groove and spring. The supports of the joist floor must have a maximum distance of 60 cm. Joints must be formed centrally over the support. The wood moisture content must correspond to the equilibrium moisture content.

Relative humidity in%	Value for the respective wood equilibrium moisture content (bulk%)						
90 %	21.1	21.0	21.0	20.8	20.0	19.8	19.3
85 %	18.1	18.0	18.0	17.9	17.5	17.1	16.9
80 %	16.2	16.0	16.0	15.8	15.5	15.1	14.9
75 %	14.7	14.5	14.3	14.0	13.9	13.5	13.2
70 %	13.2	13.1	13.0	12.8	12.4	12.1	11.8
65 %	12.0	12.0	11.8	11.5	11.2	11.0	10.7
60 %	11.0	10.9	10.8	10.5	10.3	10.0	9.7
55 %	10.1	10.0	9.9	9.7	9.4	9.0	8.8
50 %	9.4	9.2	9.0	8.9	8.6	8.4	8.0
45 %	8.6	8.4	8.3	8.1	7.9	7.5	7.1
40 %	7.8	7.7	7.5	7.3	7.0	6.6	6.3
35 %	7.0	6.9	6.7	6.4	6.2	5.8	5.5
30 %	6.2	6.1	5.9	5.6	5.3	5.0	4.7
25 %	5.4	5.3	5.0	4.8	4.5	4.2	3.8
Temperature ° C	10°	15°	20°	25°	30°	35°	40°

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Standards and regulations:

It is recommended that the following standards and regulations are taken into account:

- DIN 18352 Tiling and slab laying
- DIN 18332 Natural stone laying
- DIN 18333 Working with concrete ashlar
- DIN 18353 Screed work
- DIN 18202 Tolerances in building construction
- DIN 18560 Screeds in building construction
- DIN EN 13813 Screed mortar, screed mass
- DIN 18531-1 Waterproofing of roofs, balconies, loggias and walkways
- DIN 18534-2 Sealing with sheet-type sealing materials
- DIN 18157 Ceramic coverings using the thin-bed method
- Data sheets from the Federal Association for Screeds
 and Coverings
- Data sheets from the German Tile and Natural Stone Association of the Central Association of the German Construction Industry
- Interface coordination for heated floor structures
- Central Association of the German Construction industry data sheet "Mechanically highly resilient floor coverings"
- Central Association of the German Construction industry: Tiles and mat information "Notes on decoupling"
- BAKT Information Technology Baths in dry construction, German Natural Stone Association – Structural information on natural stone

All details, references, notes, applicable specialist regulations, guidelines, standards and specialist knowledge are directed towards the German, and insofar as they are congruent, to the existing European regulations and training standards, irrespective of additional country-specific extensions or modifications.

All our information is based on our experience and carefully performed tests. The variety of additional materials that might be used and differing construction and working conditions cannot be individually checked or influenced by us. The fulfilment of an outstanding service contract and the manufacturing of a demonstrable functional capability of the trades is therefore dependent on adhesion to the current VOB (German Construction Contract Procedures) regulations and recognised technological rules.

Our details do not preclude responsible planners and processors from their duty to independently assess the conditions of a building and suitable application of the products. In case of doubt, please seek technical application advice or carry out your own tests. The manufacturer's guidelines for laying and processing the surfacing material or the guidelines for other products used must be observed. The publication of this product data sheet invalidates all previous product data sheets.

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