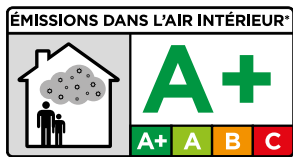




# PLURIPROOF

## Waterproof membrane

- Composite material • Water impermeable
- Crack bridging • Alkali resistant
- Resistant to chemicals in accordance with building authorities test criteria
- For interiors • UV stabilised
- Resistant to micro organisms • Easy to use
- Even thickness • Building authorities tested
- Very low emission



### TECHNICAL FEATURES:

PLURIPROOF is a waterproof membrane consisting in a polypropylene felt externally, and an internal part in polyethylene to insert underneath the tiles.

### AREAS OF APPLICATION:

PLURIPROOF is used for waterproofing beneath ceramic tile, natural stone and synthetic stone finishes in bathrooms, kitchens, private and public wash rooms (such as e.g. in hotels, sports complexes and old people homes and care homes).

PLURIPROOF is suitable for wet duty classification areas A1, A2 and C in accordance with building authority test criteria and the damp duty classification areas O, A01, A02 in accordance with the ZDB information sheet "Advice on the installation of bonded waterproofing with tiled finishes in internal and external areas." Furthermore PLURIPROOF Can be used for waterproofing in buildings with traffic loadings up to 3.5 KN/m<sup>2</sup>, point loads in accordance with DIN 1055-3 up to 2KN. High dynamic loading (such as e.g. continuous vehicular traffic) is excluded. Fine, non-penetrating hairline cracks on the surface of the substrate of < 0.1 mm are acceptable and can be directly bridged with PLURIPROOF.



TECHNICAL  
ASSISTANCE



INSURANCE  
GUARANTEE



TECHNICAL  
MEETINGS



PROFESSIONAL  
USE

### CONTRACT ITEM SPECIFICATIONS:

The waterproofing of support twill be finalized with the use of a waterproof membrane to insert underneath the tiles. The membrane must be waterproof, alkalis resistant, with a homogeneous thickness, resistant to chemicals, resistant to micro-organisms, easy to apply, as PLURIPROOF by Benfer.

**System components for wet duty classes A1, A2, O, A01, A02:**

STARPRIM or BENFERPRIM (mix ratio 1:3) with porous substrates, overlap PLURIPROOF and bond with MATADHESIVE.

**BSWTAPE and also available as shapes:**

BSWTAPE corners, 90°, internal/external, BSWTAPE T, BSWTAPE crossover, BSWTAPE floor and wall.

MATADHESIVE for bonding the waterproof tape sections and tiles.

Aceton for degreasing connections.

ASO-Primer as adhesion promoter for metals.

ACQUASHIELD-2KF for attaching the BSWTAPE-floor and wall to thin bed flanges pipe penetrations.

DEKOGROUT, DEKOGROUT+, DEKOGROUT-HF 1/30, DEKOGROUT-2K for grouting the finish.

DEKOSIL E DEKOFLEX-PU for sealing movement joints.

**Wet duty class C (including the above classifications):**

STARPRIM o BENFERPRIM (mix ratio 1:3) with porous substrates.

Bond PLURIPROOF with MATADHESIVE.

BSWTAPE and also available as shapes BSWTAPE corners, 90°, internal/external, BSWTAPE T, BSWTAPE crossover, BSWTAPE floor and wall.

MATADHESIVE to allow the part of the waterproofing tape to adhere to the tiles

REVOFLEX to allow the part of the waterproofing tape BSWTAPE floors and walls, to adhere to the basis of supports with penetration from tubes and the straight joints among stripes of waterproofing membrane.

Universal cleansing product for degreasing the connections.

ASO-Primer as adhesion promoter for metals.

DEKOGROUT, DEKOGROUT+, DEKOGROUT-HF 1/30, DEKOGROUT-2K for grouting the finish.

DEKOSIL and DEKOFLEX-PU for movement joints.

**METHOD OF USE**

**SUITABLE SUBSTRATES:**

All flat, load bearing surfaces that are capable of taking a tiled finish are suitable and that are suited to accept a tiled combination waterproof membrane (see ZDB information sheet [\* 1]). The substrate must be load bearing, suitably flat, free from penetrating cracks and free from separating substances (such as e.g. oil, paint, laitance and loose debris). The substrate must have a largely closed tight surface and have a surface condition and strength appropriate for its type. With regard to the substrate, substrate preparation and application to DIN 18 157, part 1 is overriding. Separating cracks are to be professionally appraised and if necessary sealed with an adhesive seal (e.g. with REOREP) before further work. Renders to EN 998-1 of strength classification CS I to CS IV must have a minimum compressive strength of 2.0 N/mm<sup>2</sup> and be suitable for taking tiles in the relevant dampness/wet duty classification. The surface should remain rough and not felted or smoothed. Prime porous and lightly porous substrates with STARPRIM o BENFERPRIM (mix ratio 1:3 with water). Steps in the substrate and dampness penetration from the rear are to be eliminated. Irregularities are to be appropriately evened out prior to the installation of PLURIPROOF. This levelling can be carried out with e.g. the levelling compound MULTIPLAN-30 or TRIOTECH-30.

In damp/wet duty areas a fall of minimum 1.5% is to be constructed towards the drain outlet. Floor drain outlets should be furnished with a circumferential thin bed flange of a minimum width of 5 cm and consist of a material suitable for bonding (such as e.g. stainless steel, gunmetal, PVC-U).

Heated screeds must be commissioned prior to the installation of floor finishes in accordance with recognised technical regulations. To determine the readiness of substrates to receive finishes carry out moisture measurements with a CM device. The CM moisture content may not exceed:

- CT  $\leq$  2.0 CM% for screeds on insulation or separating layers
- CA without underfloor heating  $\leq$  0.5 CM%
- CA with underfloor heating  $\leq$  0.3 CM%

The CM measurement is to be carried out in accordance with current work instructions FBH-AD from the technical information "Coordination of cut out areas for heated floor construction". Calcium sulphate screeds are acceptable in housing construction with floor drains. They must be abraded, vacuumed and as with all calcium sulphate based substrates, primed with STARPRIM o BENFERPRIM (mix ratio 1:3 with water).

## PRODUCT APPLICATION:

### Construction in wet duty classification areas A1

Wall and floor areas with lower to higher levels of wet use (such as e.g. private bathrooms, WCs and kitchens, communal showers in sports complexes, care homes, health centres, swimming pool surrounds etc.)

1. Assess the substrate, clean and prepare appropriately. Roughen edging profiles, thin bed flanges as necessary, clean and degrease with Universal cleaner. Prime porous and lightly porous substrates with STARPRIM o BENFERPRIM (mix ratio 1:3 with water).
2. Place clean water into a clean mixing bucket, add the water repellent MATADHESIVE and mix until homogenous with a stirrer (approx. 300-700 rpm). Use a smooth, free flowing consistency to install the waterproof membrane in order to achieve good wetting out of the PLURIPROOF. Follow the MATADHESIVE data sheet. Mixing ratio: approx. 8.5 litres water: 25 kg MATADHESIVE.
3. Cut the PLURIPROOF to fit using a knife or scissors. Comb MATADHESIVE onto the prepared substrate using a 4 mm notched trowel approx. 10 cm wider than the PLURIPROOF membrane. Subsequently lay the membrane into the adhesive bed and press firmly into the adhesive bed, without voids or folds, with a plasterers trowel or a roller. Ensure that there is void free bedding and good wetting between the fleece and the adhesive. The cut membrane should be overlapped a minimum of 5 to 10 cm. Bonding of the membrane in the overlapped areas is also to be carried out with the water repellent MATADHESIVE. The membrane should be laid in shingle fashion in the direction of the drainage.
4. Joints / junctions are to be carried out on the top surface of the PLURIPROOF with BSWTAPE as well as formed pieces BSWTAPE CORNERS, 90°, internal/external, crossover.
5. Bond BSWTAPE and BSWTAPE CORNERS (internal and external) in the corners, at junctions between wall and floor as well as over connection joints, free from voids and folds with MATADHESIVE to the PLURIPROOF and the prepared wall surface. The pre-formed sections BSWTAPE-T pieces or BSWTAPE crossovers are available for crossing structural or general movement joints, that when folded into the joint in a loop makes this possible. Straight joints are always to be overlapped between 5 and 10 cm. Ensure that a watertight connection between the wall and the floor waterproofing is produced.
6. The floor drainages must be prepared, as description of part 1) and must be supplied with an appropriate flange. The metallic flange must be treated with the suitable adhesion promoter Primer, applied with a clean brush. After a minimum of 30 minutes and within a maximum of 4 hours, proceed with following phases. Apply ACQUASHIELD-2KF with a scraper with teeth of 6 mm, on the lower part of the flange and on the membrane PLURIPROOF all around. Then apply the proper piece of BSWTAPE sealing tape on ACQUASHIELD-2KF without empty spaces or folds, and then the flange itself, so you can obtain a water-proof connection.

7. If you need to waterproof the wall's passing tubes, use BSWTAPE sealing tape, considering the diameter of the tube. Roughen the tube, clean and degrease with a universal cleansing product. Then apply a thin coat of the adhesion promoter ASO-Primer, by using a clean cloth. After a minimum of 30 minutes and within a maximum of 4 hours, apply ACQUASHIELD-2KF and put in position the appropriate piece BSWTAPE sealing tape on ACQUASHIELD-2KF without empty spaces or folds, and then the flange itself, so you can obtain a water-proof connection. The hole in the special piece BSWTAPE sealing tape must have a considerably inferior diameter, compared to the tube's one; so, once you put it in position, the special piece will create a pressure on the tube.
8. The tiles for the floor finish must have a minimum surface area of 100 cm<sup>2</sup> and a minimum of 1500 N breaking load. Install the tiles with MATADHESIVE within the open time ensuring a void free bed as far as possible. Produce a scratch coat on the PLURIPROOF and subsequently comb out the adhesive evenly with a suitable notch size dependent on the size of the tile. The installation of tiles can be carried out directly onto the freshly laid PLURIPROOF, if the waterproofing is adequately protected and any load spread (e.g. protective boards).
9. The grouting of the tiled finish can be carried out with DEKOGROUT, the high strength DEKOGROUT-HF 1/30 or the epoxy resin grout DEKOGROUT-2K. For grouting natural stone we recommend DEKOGROUT+ with rapid crystalline water binding. Leave movement joints free for elastic sealing.
10. Sealing of connection and movement joints is carried out with DEKOSIL or DEKOFLEX-PU with natural stone.

### Construction in wet duty classification areas C

Wall and floor areas with higher levels of wet use and limited chemical contact, (such as e.g. commercial kitchens, dairies, breweries, slaughter houses, car washes etc.)

1. Assess the substrate, clean and prepare appropriately. Roughen edging profiles and thin bed flanges, clean and degrease with Universal cleaner. Prime porous and lightly porous substrates with STARPRIM or BENFERPRIM (mix ratio 1:3 with water).
2. Place clean water into a clean mixing bucket, add the water repellent MATADHESIVE and mix until homogenous with a stirrer (approx. 300-700 rpm). Use a smooth, free flowing consistency to install the waterproof membrane in order to achieve good wetting out of the PLURIPROOF. Follow the MATADHESIVE data sheet. Mixing ratio: approx. 8.5 litres water: 25 kg MATADHESIVE.
3. Cut the PLURIPROOF to fit using a knife or scissors. Comb MATADHESIVE onto the prepared substrate using a 4 mm notched trowel approx. 10 cm wider than the PLURIPROOF membrane. Subsequently lay the membrane into the adhesive bed and press firmly into the adhesive bed, without voids or folds, with a plasterers trowel or a roller. Ensure that there is void free bedding and good wetting between the fleece and the adhesive.
4. Joints / junctions are to be carried out on the top surface of the PLURIPROOF with BSWTAPE as well as formed pieces BSWTAPE CORNERS, BSWTAPE-T pieces, BSWTAPE-crossover.
5. Bond BSWTAPE and BSWTAPE CORNERS (internal and external) in the corners, at junctions between wall and floor as well as over connection joints, free from voids and folds with MATADHESIVE to the PLURIPROOF membrane and the prepared wall surface. The pre-formed sections BSWTAPE-T pieces or BSWTAPE crossovers are available for crossing structural or general movement joints, that when folded into the joint in a loop makes this possible. Straight joints are always to be overlapped between 5 and 10 cm. Ensure that a watertight connection between the wall and the floor waterproofing is produced.
6. Floor drains are to be prepared as described in 1 and must be furnished with a suitable thin bed flange. Wipe over the stainless steel, gunmetal thin bed flanges with the adhesion

promoter for metals ASO-Primer on a clean cloth. After 30 minutes and up to a maximum of 4 hours continue with the following steps. Trowel REVOFLEX using a 4 mm or 6 mm notched trowel onto the thin bed flange and in overlapped areas onto the PLURIPROOF. Before this coat forms a skin bed in BSWTAPE with no voids or folds so that a watertight connection to the PLURIPROOF is produced.

7. For waterproofing pipe penetrations in wall areas either BSWTAPE is used dependent on the nominal diameter. We recommend manifold penetrations or cable feeders with a 5 cm wide flange are provided to ensure a faultless, rapid installation. Roughen the pipe penetration, clean and degrease with an appropriate cleaner. Subsequently thinly apply the adhesion promoter for metal ASO-Primer with a clean cloth. After 30 minutes and up to a maximum of 4 hours thoroughly apply waterproofing and subsequently position the BSWTAPE. In that no thin bed flange was designed, the hole diameter of the gasket must be considerably smaller than the diameter of the pipe so that via a "memory effect" the BSWTAPE applies pressure to the pipe penetration.
8. The tiles for the floor finish must have a minimum surface area of 100 cm<sup>2</sup> and a minimum of 1500 N breaking load. Install the tiles with waterproofing within the open time ensuring a void free bed as far as possible. Produce a scratch coat on the PLURIPROOF and subsequently comb out the adhesive evenly with a suitable notch size dependent on the size of the tile. The installation of tiles can be carried out in the floor area, as soon as the MATADHESIVE with which the PLURIPROOF membrane was laid has hardened, as a rule on the next day.
9. The grouting of the tiled finish can be carried out with the high strength DEKOGROUT-HF 1/30 or the epoxy resin grout DEKOGROUT-2K. Leave movement joints free for elastic sealing.
10. Sealing of connection and movement joints is carried out with DEKOSIL or DEKOFLEX-PU.

#### ADVICE:

PLURIPROOF may not be bonded, overcoated or come into contact with solvent containing adhesives.

The direct contact with metals such as copper, zinc and aluminium must be avoided.

Expansion and bounding joints need to be created or finished in an appropriate way.

The control joints must be fixed to avoid the misalignment.

**CLEANING:** The cleaning of the product must be done with water, before the product starts setting.

**CONSUMPTION:** 1,01 m<sup>2</sup>/m<sup>2</sup>.

**PACKAGING:** 15 m rolls and Europallet of 40 rolls.

**STORAGE:** In the original closed package in a cool dry place.

**SHELF LIFE:** 5 years.

#### PRODUCT TECHNICAL DATA

Basis:	Composite material = felt - membrane - felt
Colour:	White
Thickness:	0,51 mm
Large:	1000 mm
Weight:	298 g/m <sup>2</sup>
Storage and durability:	5 years in the original closed package in a cool dry place
Application temperature:	From + 5° C to + 35° C
Burst pressure:	3 bar
Longitudinal rupture loading:	96 N/15 mm
Transversal I rupture loading:	47 N/15 mm
Longitudinal elongation:	86%
Transversal elongation:	83%
Impermeability to water:	>1,5 bar
UV resistance:	500 hours
Classification to fire:	B2
<b>Chemical Resistance after 7 days at 22°C to the following chemical substances:</b>	
Hydrochloric acid 3%:	Resistant
Sulfuric acid 35%:	Resistant
Citric acid 100g/lit:	Resistant
Lactic acid 5%:	Resistant
Potassium hydroxide 20%:	Resistant
Sodium hydroxide 0,3 g/lit :	Resistant
Sea water 20 g/lit:	Resistant
Resistance to temperature:	From -30°C to + 90°C

**Please observe a current valid EU Safety Data Sheet.**

PLEASE NOTE: The information given in this chart is based on our best experience and indicative only. It must in any event be verified by the end user, who assumes all liabilities deriving from utilization of the product.