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SCHOMBURG Building Product Systems

Technical Data Sheet

SANIFIN

Art.-No 2 05901

Waterproof membrane beneath tiles

Properties:
- 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

Technical Data:

Basis:	composite material consisting of a polypropylene fleece on the exterior with an internal polyethylene inlay
Weight:	approx. 316 g/m²
Colour:	white with random print
Sd value:	approx. 107 m ± 7 m
Water vapour permeability in accordance with DIN EN 1931	
Thickness:	approx. 0.5 mm
Storage:	frost free, 18 months, protected from sunlight in the original unopened packaging
Packaging:	Rolls: 15 m x 1.00 m (length x width)
Fire performance to DIN 4102-1:	B2
UV resistance to DIN ISO 4892-3:	≥ 450 hours
Testing:	Fulfills the requirements of the "Testing policy for the assignation of a building authorities test certificate for waterproofing materials in combination with tiled finishes, part 2 sheet form combination waterproofing" for the procurement of an abP. MPA Braunschweig, test certificate No. P-5078/818/08-MPA BS

Areas of application:
SANIFIN 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 peoples homes and care homes).

SANIFIN is suitable for wet duty classification areas A1, A2 and C in accordance with building authority test criteria and the damp duty classification areas 0, 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 SANIFIN can be used for waterproofing in buildings with traffic loadings up to 3.5 KN/m², 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 SANIFIN.

System components for wet duty classes A1, A2, 0, A01, A02:
ASO-Unigrund or ASO-Unigrund-K (mix ratio 1:3) with porous substrates, overlap SANIFIN and bond with ADF-Systemkleber.
ASO-Dichtband-2000 and also available as shapes ASO-Dichtband-2000 corners, 90°, internal/external, ASO-Dichtband-2000-S corners, 90°, internal/external, ASO-Dichtband-2000-T pieces,

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ASO-Dichtband-2000-crossover,
ASO-Dichtmanschette-floor and
ASO-Dichtmanschette-wall.
ADF-Systemkleber for bonding the waterproof tape sections and tiles.
Universal cleaner for degreasing connections.
ASO-Primer as adhesion promoter for metals.
AQUAFIN-2K/M for attaching the ASO-Dichtmanschette-floor/wall to thin bed flanges pipe penetrations.
ASO-Fugenbunt/CRISTALLFUGE/ASO-Flexfuge/HF05-Brillantfuge/ASODUR-EK98 for grouting the finish.
ESCOSIL-2000, ESCOSIL-2000-ST, ESCOSIL-2000-UW for sealing movement joints.

Wet duty class C (including the above classifications):
ASO-Unigrund GE or ASO-Unigrund-K (mix ratio 1:3) with porous substrates.
Bond SANIFIN with ADF-Systemkleber.
ASO-Dichtband-2000-S and also available as shapes
ASO-Dichtband-2000-S corners, 90°, internal/external,
ASO-Dichtband-2000-T pieces,
ASO-Dichtband-2000-crossover,
ASO-Dichtmanschette-floor and
ASO-Dichtmanschette-wall.
ASOFLEX-AKB for bonding the waterproof tape sections,
ASO-Dichtmanschette-floor / wall to thin bed flanges and pipe penetrations and straight cut waterproof tape between the membrane sheets.
Universal cleaner for degreasing connections.
ASO-Primer as adhesion promoter for metals.
ASODUR-EK98 for installing the tiles.
HF05-Brillantfuge/ASODUR-EK98 for grouting the finish.
ASOFLEX-PU45, ESCOSIL-2000, ESCOSIL-2000-ST, ESCOSIL-2000-UW for movement joints.

Substrate:
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 ASODUR-K900) before further work.

Renders to DIN EN 998-1 of strength classification CS I to CS IV must have a minimum compressive strength of 2.0 N/mmÇ 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 ASO-Unigrund-GE or ASO-Unigrund-K (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 SANIFIN. This levelling can be carried out with e.g. the levelling compound SOLOPLAN-30 or SOLOCRET-15.

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).

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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 ≤ 2.0 CM% for screeds on insulation or separating layers
- CA without underfloor heating ≤ 0.5 CM%
- CA with underfloor heating ≤ 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 for damp duty classification 0 areas. They must be abraded, vacuumed and as with all calcium sulphate based substrates, primed with ASO-Unigrund-GE or ASO-Unigrund-K (mix ratio 1:3 with water).

Application:

Construction in wet duty classification areas A1, A2, 0, A01, A02

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 ASO-Unigrund-GE or ASO-Unigrund-K (mix ratio 1:3 with water).
2) Place clean water into a clean mixing bucket, add the water repellent ADF-Systemkleber 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 SANIFIN. Follow the ADF-Systemkleber data sheet.
   Mixing ratio: approx. 8.5 litres water: 25 kg ADF-Systemkleber.
3) Cut the SANIFIN to fit using a knife or scissors. Comb ADF-Systemkleber onto the prepared substrate using a 4 mm notched trowel approx. 10 cm wider than the SANIFIN 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 ADF-Systemkleber. 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 SANIFIN with ASO-Dichtband-2000 as well as formed pieces ASO-Dichtband-2000-corners, 90°, internal/external, ASO-Dichtband-2000-S corners, 90°, internal/external, ASO-Dichtband-2000-T pieces, ASO-Dichtband-2000-crossover.
5) Bond ASO-Dichtband-2000 and ASO-Dichtband-2000 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 ADF-Systemkleber to the SANIFIN and the prepared wall surface. The pre-formed sections ASO-Dichtband-T pieces or ASO-Dichtband 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 AQUAFIN-2K/M using a 6 mm notched trowel onto the thin bed flange and in overlapped areas onto the SANIFIN. Before this coat forms a skin bed in ASO-Dichtmanschette-floor with no voids or folds so that a watertight connection to the SANIFIN is produced.

7) For waterproofing pipe penetrations in wall areas either ASO-Dichtmanschette-floor or ASO-Dichtmanschette-wall is used dependent on the nominal diameter. Roughen the pipe penetration, clean and degrease with Universal 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 AQUAFIN-2K/M and subsequently position the ASO-Dichtmanschette. The hole diameter of the gasket must be considerably smaller than the diameter of the pipe so that via a "memory effect" the ASO-Dichtmanschette applies pressure to the pipe penetration.
8) The tiles for the floor finish must have a minimum surface area of 100 cm^2 and a minimum of 1500 N breaking load. Install the tiles with ADF-Systemkleber within the open time ensuring a void free bed as far as possible. Produce a scratch coat on the SANIFIN 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 SANIFIN, 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 ASO-Fugenbunt, ASO-Flexfuge, the high strength HF05-Brillantfuge or the epoxy resin grout ASODUR-EK98. For grouting natural stone we recommend CRISTALLFUGE with rapid crystalline water binding. Leave movement joints free for elastic sealing.
10) Sealing of connection and movement joints is carried out with ESCOSIL-2000 or ESCOSIL-2000-T 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 ASO-Unigrund-GE or ASO-Unigrund-K (mix ratio 1:3 with water).
2) Place clean water into a clean mixing bucket, add the water repellent ADF-Systemkleber 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 SANIFIN. Follow the ADF-Systemkleber data sheet.
   Mixing ratio: approx. 8.5 litres water: 25 kg ADF-Systemkleber.
3) Cut the SANIFIN to fit using a knife or scissors. Comb ADF-Systemkleber onto the prepared substrate using a 4 mm notched trowel approx. 10 cm wider than the SANIFIN 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 watertightness between the individual components of the SANIFIN membrane within waterproof class C can be achieved in the following two variations:

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3a) The cut membrane should be overlapped a minimum of 5 to 10 cm. The overlapped areas are not bonded in this case! Bonding of the membrane is achieved once the ADF-Systemkleber hardens, with the PU waterproofing material ASOFLEX-AKB. The membrane should be laid in shingle fashion in the direction of the drainage.

3b) The cut membrane is laid butt jointed with no overlap. In the middle of the butt joint – after the ADF-Systemkleber had hardened – ASO-Dichtband-2000-S is positioned with the PU waterproofing material ASOFLEX-AKB.

4) Joints / junctions are to be carried out on the top surface of the SANIFIN with ASO-Dichtband-2000-S as well as formed pieces ASO-Dichtband-2000-S-corners, 90º, internal/external, ASO-Dichtband-2000-T pieces, ASO-Dichtband-2000-crossover.

5) Bond ASO-Dichtband-2000-S and ASO-Dichtband-2000 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 ADF-Systemkleber to the SANIFIN membrane and the prepared wall surface. The pre-formed sections ASO-Dichtband-T pieces or ASO-Dichtband 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 ASOFLEX-AKB using a 4 mm or 6 mm notched trowel onto the thin bed flange and in overlapped areas onto the SANIFIN. Before this coat forms a skin bed in ASO-Dichtmanschette-floor with no voids or folds so that a watertight connection to the SANIFIN is produced.

7) For waterproofing pipe penetrations in wall areas either ASO-Dichtmanschette-floor or ASO-Dichtmanschette-wall 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 Universal 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 ASOFLEX-AKB and subsequently position the ASO-Dichtmanschette. 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 ASO-Dichtmanschette applies pressure to the pipe penetration.

8) The tiles for the floor finish must have a minimum surface area of 100 cm^2 and a minimum of 1500 N breaking load. Install the tiles with ASODUR-AKB within the open time ensuring a void free bed as far as possible. Produce a scratch coat on the SANIFIN 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 ADF-Systemkleber with which the SANIFIN 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 HF05-Brillantfuge or the epoxy resin grout ASODUR-EK98. Leave movement joints free for elastic sealing.

10) Sealing of connection and movement joints is carried out with ASOFLEX-PU45, ESCOSIL-2000 or ESCOSIL-2000-UW.

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Advice:

- SANIFIN may not be bonded, overcoated or come into contact with solvent containing adhesives.
- Apply a contact coat, onto the prepared and cleaned load bearing substrate, consisting of 25 kg ADF-Systemkleber modified with 4.17 kg UNIFLEX-B. Subsequently bond the SANIFIN with this mix to the substrate prepared as described or bond the SANIFIN membrane to the cured contact coat with ADF-Systemkleber without additional modification.
- Direct contact with metals such as copper, zinc and aluminium is eliminated by a thorough priming within the pores. A pore free priming is produced in two coats with ASODUR-GBM. The first coat is applied to saturation to the substrate, firstly cleaned with Universal cleaner, and carefully brushed in. Once this coat has reacted sufficiently so that it can no longer be disturbed (approx. 3 hours), a further coat of ASODUR-GBM is brushed on and broadcast with 0.1 – 0.6 mm quartz sand. Consumption: approx. 800-1000 g/m^2 ASODUR-GBM.
- Bay, intermediate and structural movement joints are to be brought through or constructed in the designated place and stopped with a suitable material e.g. edging strips. Control joints are to be adhesively filled or ensured against height offsets and formed as a movement joint in the final finish.
- As additional protection against the formation of ettringite with calcium sulphate based substrates, it is recommended that the special adhesive UNIFIX-AEK be used for installing the SANIFIN on these substrates. In this case modify 25 kg ADF-Systemkleber with 4.2 kg UNIFLEX-B.
- Follow the current valid technical data sheets for the named products.
- Protect areas not to be treated from the effects of the products used.
- Observe the relevant current regulations. Therefore e.g.
  DIN 18157 DIN EN 13 813
  DIN 18352 DIN 18202
  DIN 18560 DIN 1055
  The BEB information sheets distributed by the "Bundesverband Estrich und Belag e.V."
  The professional information for the coordination of cut out points for heated floor construction.
  The professional information "Suitability of lightweight renders as an installation surface for wall coverings with and without bonded waterproofing", July 2008.
  The ZDB information sheets distributed by the German professional tile association:
  [*1] "Advice for the installation of bonded waterproofing with tile and slab cladding and finishes for interior and exterior areas".
  ["2] "Finishes on calcium sulphate screeds".
  [*3] "Movement joints in tile and slab cladding and finishes".
  [*5] "Ceramic tiles and slabs, natural and concrete stone/slabs on cement-based floor constructions with insulation".
  [*6] "Ceramic tiles and slabs, natural and concrete stone/slabs on heated cement-based floor constructions".

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