Single-layer waterproofing membranes

SPECIFICATION GUIDELINES
The specification guidelines below form the basis of the planning preparations for unused and accessible roof waterproofing with the hot-air-weldable, EPDM-based RESITRIX® waterproofing membranes.

All key roof structure and detail formations are described in text form and supplemented with images and drawings. Other local conditions or material combinations not described here may affect the functionality. Designs that vary from the planning guidelines as well as special solutions therefore require prior agreement with our Technical Department.

The information and product descriptions in this publication are based on our experience and test results and are correct to the best of our knowledge and belief. They form the basis of all of the solutions described here. Claims for compensation may not be derived from the contents of this publication. We reserve the right to make technically feasible design and product range modifications in accordance with our high standards regarding quality and continuous advancement.

These specification guidelines replace and supersede all previous editions.

September 2017
1. Basic Information

- The generally accepted technology standards must be complied with. The latest valid editions of all relevant standards, regulations, directives and guidelines apply.
- All RESITRIX® waterproofing membranes comply with the material-related requirements for high quality roof waterproofing as per DIN 18193 (Property class E1 and application category K2) and the specialist rule for sealing applications (flat roof guidelines), with the additional requirements of the applicable set of rules also having to be complied with. They also meet the requirements for the waterproofing of buildings as per DIN 18195 and its follow on standards.
- All prior services from other trades must be suitable for the roof structure in question.
- The specification guidelines cannot take into account all construction related partial or specialist solutions. Applications relating to the waterproofing of buildings are not described in these specification guidelines. Their technical execution should only take place following consultation with our Technical Department.
- In the event of deviations from the general technical regulations, the specifications according to these guidelines may be applied.

2. General planning notes

The choice of suitable RESITRIX® waterproofing membranes and their installation variants, as well as the choice of all other individual layers of the overall roof structure, correlates with the following system proofs for the overall construction:

- Roof structure and wind suction safety as well as static safety
- Proof of heat and moisture protection
- Compliance with the regulations of the energy-saving ordinance
- Fire safety certificate and/or sound insulation certificate
- Proof of roof protection in the case of roof vegetation

During the planning of the standard layer structure, as well as detailed solutions, the following individual instructions must be kept in mind:

- In accordance with the set of technical regulations, a minimum tapering of 2% should be planned for waterproofing structures. This can only be deviated from in justified exceptions.
- Please comply with the general substrate requirements for the individual installation variant. In particular, all substrates must be checked for suitability with regard to material compatibility and mechanical stress. Suitable protective layers or separating layers made from non-woven glass fibre, synthetic fleece or bitumen membranes must be laid if necessary.
- Above expansion joints, suitable additional measures must be taken, e.g. through the installation of the RESIFLEX® SK expansion joint sealing strip.
- In front of vertical surfaces, we recommend extending the roof membrane approx. 150 mm upwards, to provide additional security against water seepage.
- Around roof drains, the substrate should be lowered by at least 10 mm on a surface of at least 0.5 m² (0.7 x 0.7 m) to allow the faster drainage of rainfall. Outlets should be centralised as much as possible within a seamless section of the RESITRIX® waterproofing membranes.
- If metal components are required, we recommend the use of stainless steel (for the exact type, please consult the relevant manufacturer), aluminium or the use of suitable synthetic for the construction of drainage elements. No warranty claims will be considered in the event of signs of corrosion on unprotected drainage elements made from zinc or zinc alloys as a result of adverse environmental conditions – e.g. acid mist or rain.
- Depending on the individual layers, additional measures may need to be taken in conjunction with the roof geometry to prevent slide-off.
- For all of the roof structures referred to in these specification guidelines with the various RESITRIX® waterproofing membranes, the proofs of resistance to flying sparks and radiating heat (hard roof covering) as per DIN 4102, part 7 for B Roof (t1) as per DIN EN 1187 are available.

The waterproofing systems not only include the listed waterproofing membranes, but also the following complementary products and accessories:

- Adhesives / primers for substrate bonding
- RESIFLEX® SK + RESIFLEX® 3D expansion joint tape
- Pull-over sleeves for round roof ducts
- Punched parts for forming corners
- BLIFIX® lightning conductor bracket system
- Stainless steel accessories with integrated RESITRIX® sleeves for internal drainage and for pipe ducts

Please refer to the product data sheets inside the RESITRIX® product catalogue for detailed information.

- As a vapour barrier membrane on profiled steel decking and on wood / timber decking, we recommend installing self-adhesive aluminium vapour-barrier membranes ALUTRIX® FR or ALUTRIX® 600. The tear resistant and puncture resistant membranes have an equivalent air layer thickness (μd value) of 13.500 m and a fuel value of less than 16,600 kJ/m². ALUTRIX® FR also has a thermal value of below 10,500 kJ/m² and therefore meets fire safety requirements as per DIN 18234 and the Industrial Buildings Directive (IndBauRL).

ALUTRIX® FR meets FM Standard Class No. 4470 (FM Approval). Further information on ALUTRIX® vapour barrier membranes can be found in the relevant data sheet and the ALUTRIX® installation instructions.

- RESITRIX® MB satisfies FM Standard Class No. 4470 (FM Approval)
- In cases of direct renovations of material susceptible to shrinkage, prior consultation with our Technical Department is required.
- When installing thermal insulation made from polystyrene hard foam boards under exposed seals, the temperature resistance of EPS of a maximum of 70 to 85 °C (long-term) and a maximum of 100 °C (briefly) must be noted. Since this temperature resistance can be exceeded in local areas of the roof with increased heat accumulation, for example in front of heat reflecting light or glazed façades, we recommend the additional arrangement of a ballast or the use of alternative insulation.
- Roof waterproofings are exposed to a range of internal and external influences, especially of a mechanical and thermal nature. The high flexibility of RESITRIX® waterproofing membranes, coupled with their practical, shrink-free behaviour, prevents the build-up of material tension and therefore the premature ageing of the seal compared to many other shrink prone materials. However, it is not always possible to exclude optical changes in the form of unevenness or waviness while in use. This primarily affects bonded RESITRIX® waterproofing membranes on old roofs with residual moisture, on timber deck with natural domestic moisture and on insulation prone to movement and shrinkage. The functional safety of the entire seal is however not impaired by the modified installation appearances.
- To ensure the maximum service life of the entire waterproofing installation, regular servicing, inspections and maintenance should be undertaken in accordance with the relevant national regulations. In this regard, we advise taking out a suitable inspection and/or maintenance contract.
3. Product overview of RESITRIX® waterproofing membranes

Select the correct membrane for your application.

**RESITRIX® CL**

Classically bonded using PU.

RESITRIX® CL is the classic EPDM waterproofing membrane that can be welded using hot air, preferably bonded onto the substrate using PU adhesives, which have proven themselves to be outstanding on numerous flat roofs for many years.

**PRODUCT-SPECIFIC PROPERTIES**

Designation acc. to DIN SPEC 20000-201: DE 13 EPDM-BV-V-GG-1,6-PBS

Designation acc. to DIN SPEC 20000-202: BA 108-Q/MSB-Q/EPDM-BV-V-GG-1,6-PBS

Total membrane thickness: 3.1 mm

CE certification acc. to: DIN EN 13956 and DIN EN 13957

Meets the requirements under DIN 4105, the specialist rule for sealing applications (flat-roof guideline) and DIN 18195 and their subsequent guideline) and DIN 18195 and their subsequent standard DIN 18195, DIN E 18153, DIN E 18154 and DIN E 18155

**RESITRIX® MB**

Mechanically fixed.

RESITRIX® MB is the EPDM waterproofing membrane that can be welded using hot air, particularly for mechanical fixing and loose installation. It additionally meets FM Standard Class No. 4470 (FM Approval).

**PRODUCT-SPECIFIC PROPERTIES**

Designation acc. to DIN SPEC 20000-201: DE 13 EPDM-BV-V-GG-1,6-PBS

Designation acc. to DIN SPEC 20000-202: BA 108-Q/MSB-Q/EPDM-BV-V-GG-1,6-PBS

Total membrane thickness: 3.1 mm

CE certification acc. to: DIN EN 13956 and DIN EN 13957

FM Approval Standard Class No. 4470

Meets the requirements under DIN 18531, the specialist rule for sealing applications (flat-roof guideline) and DIN 18195 and their subsequent guideline) and DIN 18195 and their subsequent standard DIN 18195, DIN E 18153, DIN E 18154 and DIN E 18155

**RESITRIX® SK W Full Bond**

Self-adhesive and root-resistant across the full surface.

RESITRIX® SK W Full Bond is an EPDM waterproofing membrane that is self-adhesive and root-resistant across the full surface. It can be welded using hot air and is FLL test certified and licensed under DIN EN 13956.

**PRODUCT-SPECIFIC PROPERTIES**

Designation acc. to DIN SPEC 20000-201: DE 13 EPDM-BV-V-GG-1,6-PBS

Designation acc. to DIN SPEC 20000-202: BA 108-Q/MSB-Q/EPDM-BV-V-GG-1,6-PBS

Total membrane thickness: 2.5 mm

CE certification acc. to: DIN EN 13956 and DIN EN 13957

FLL test report of the Institute of Horticulture, FG/FU Weihenstephan

Meets the requirements under DIN 18531, the specialist rule for sealing applications (flat-roof guideline) and DIN 18195 and their subsequent standard DIN 18195, DIN E 18153, DIN E 18154 and DIN E 18155

**RESITRIX® SK Partial Bond**

Partially self-adhesive.

This EPDM waterproofing membrane can be welded using hot air and is partially self-adhesive.

RESITRIX® SK Partial Bond can be used on materials that are susceptible to movement and substrates with residual moisture.

**PRODUCT-SPECIFIC PROPERTIES**

Designation acc. to DIN SPEC 20000-201: DE 13 EPDM-BV-V-GG-1,6-PBS

Designation acc. to DIN SPEC 20000-202: BA 108-Q/MSB-Q/EPDM-BV-V-GG-1,6-PBS

Total membrane thickness: 2.5 mm

CE certification acc. to: DIN EN 13956 and DIN EN 13957

Meets the requirements under DIN 18531, the specialist rule for sealing applications (flat-roof guideline) and DIN 18195 and their subsequent standard DIN 18195, DIN E 18153, DIN E 18154 and DIN E 18155

**RESITRIX® SR**

Grey and reflective.

RESITRIX® SR is the grey EPDM waterproofing membrane that can be welded using hot air, for all types of light coloured waterproofing. RESITRIX® SR is self-adhesive and has reflective properties thanks to its light grey colour.

**PRODUCT-SPECIFIC PROPERTIES**

Designation acc. to DIN SPEC 20000-201: DE 13 EPDM-BV-V-GG-1,6-PBS

Designation acc. to DIN SPEC 20000-202: BA 108-Q/MSB-Q/EPDM-BV-V-GG-1,6-PBS

Total membrane thickness: 2.5 mm

CE certification acc. to: DIN EN 13956 and DIN EN 13957

Meets the requirements under DIN 18531, the specialist rule for sealing applications (flat-roof guideline) and DIN 18195 and their subsequent standard DIN 18195, DIN E 18153, DIN E 18154 and DIN E 18155
<table>
<thead>
<tr>
<th>INSTALLATION VARIANT</th>
<th>MECHANICAL FIXING</th>
<th>INSTALLATION USING BALLAST</th>
<th>FULL SURFACE OR PARTIAL SELF-ADHESIVE</th>
<th>STRIP-WISE COLD ADHESIVE SEALING</th>
<th>FULL SURFACE HOT ADHESIVE SEALING</th>
<th>INSTALLATION UNDER VEGETATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESITRIX® waterproofing membrane</td>
<td>RESITRIX® MB RESITRIX® CL</td>
<td>RESITRIX® MB RESITRIX® CL RESITRIX® SK Partial Bond RESITRIX® SK W Full Bond RESITRIX® SK</td>
<td>RESITRIX® SK W Full Bond RESITRIX® SK Partial Bond</td>
<td>RESITRIX® CL</td>
<td>RESITRIX® CL</td>
<td>RESITRIX® SK W Full Bond</td>
</tr>
<tr>
<td>Fixing method</td>
<td>individual fastener</td>
<td>loose or adhered</td>
<td>surface primer FG35, if necessary without surface primer* Special primer FG 40 (only on EPS without lamination or initial covering)</td>
<td>polyurethane adhesive PU-LMF-02</td>
<td>hot bitumen</td>
<td>within/without surface primer FG35, if necessary mechanical fixing with / without special primer FG 40 (only on EPS without lamination or initial covering)</td>
</tr>
<tr>
<td>Overlap</td>
<td>at least 10 cm, at least 13 cm on unfaced EPS foam</td>
<td>at least 5 cm, at least 8 cm on unfaced EPS foam</td>
<td>at least 5 cm, at least 8 cm on unfaced EPS foam</td>
<td>at least 5 cm</td>
<td>at least 5 cm</td>
<td>depending on installation type, at least 5 to 13 cm</td>
</tr>
<tr>
<td>Seam connection</td>
<td>hot-air welding</td>
<td>hot-air welding</td>
<td>hot-air welding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welding width</td>
<td>100 mm minimum</td>
<td>50 mm minimum</td>
<td>50 mm minimum</td>
<td></td>
<td></td>
<td>depending on installation type, at least 50 mm to 130 mm</td>
</tr>
</tbody>
</table>

* See also: Tables 5.2, 5.4 and 5.5 in which cases primer can be dispensed with.
5. Installation possibilities

Within the following summaries, all installation possibilities for RESITRIX® waterproofing membranes are set out as a function of conventional substrates and ballasts, wear layers or vegetation. There is a wide range of variants available. The preferred versions from an installation technology perspective are highlighted in colour for each of these installation possibilities. The other variants may however also be perfectly suitable or necessary taking account of further framework conditions, such as changed weathering behaviour or the construction of temporary waterproofing.

5.1 Self-adhesive RESITRIX® Waterproofing Membranes on Mineral Wool Boards (MW)

<table>
<thead>
<tr>
<th>INSULATION TYPE AS PER DIN EN 13162</th>
<th>LAMINATION / BRAND</th>
<th>PRIMER</th>
<th>WATERPROOFING MEMBRANE</th>
<th>USAGE OF FG 35 IN g/m²</th>
<th>ROOF PITCH</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAA-dm Only for unused roofs</td>
<td>top-side fleece lamination at the factory Only the following brand: HARDROCK Multi-fix (DD)</td>
<td>FG 35, full surface</td>
<td>RESITRIX® SK W Full Bond RESITRIX® SR</td>
<td>approx. 140 approx. 200</td>
<td>any</td>
<td>Note the installation conditions of the insulation manufacturer. If necessary, take additional measures against slide-off and to secure against wind suction.</td>
</tr>
<tr>
<td>DAA-dh Also for used roofs, accessible</td>
<td>inorganic, fibre-reinforced coating applied at the factory Only the following brands: Rockwool-Megarock</td>
<td>FG 35, full surface</td>
<td>RESITRIX® SK W Full Bond RESITRIX® SR RESITRIX® Sk Partial Bond</td>
<td>approx. 140 approx. 200 up to 20°</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Preferred installation variant

5.2 Self-adhesive RESITRIX® Waterproofing Membranes on EPS Foam Board

<table>
<thead>
<tr>
<th>INSULATION TYPE AS PER DIN EN 13163</th>
<th>LAMINATION / BRAND</th>
<th>PRIMER</th>
<th>WATERPROOFING MEMBRANE</th>
<th>USAGE OF PRIMER IN g/m²</th>
<th>ROOF PITCH</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAA-dm Only for unused roofs</td>
<td>unfaced or without deck</td>
<td>FG 40, full surface</td>
<td>RESITRIX® SK W Full Bond RESITRIX® SR</td>
<td>approx. 70-100 not required</td>
<td>any</td>
<td>Note the installation conditions of the insulation and bitumen membrane manufacturer; if necessary, take additional measures against slide-off and to prevent the temperature resistance of EPS being exceeded (see also instructions under Section 3, General planning notes).</td>
</tr>
<tr>
<td>DAA-dh Also for used roofs, accessible</td>
<td>factory coated lamination made from bitumen membrane, sand or talc covered</td>
<td>FG 35, full surface</td>
<td>RESITRIX® SK W Full Bond RESITRIX® SR RESITRIX® Sk Partial Bond</td>
<td>approx. 140 approx. 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>factory coating lamination from bitumen membrane with flame PE release film primer should always be used</td>
<td>RESITRIX® SK W Full Bond RESITRIX® SR RESITRIX® Sk Partial Bond</td>
<td>not applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>unfaced with deck made from cold self-adhesive bitumen membrane and flame PE release film primer should always be used</td>
<td>RESITRIX® SK W Full Bond RESITRIX® SR RESITRIX® Sk Partial Bond</td>
<td>not applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Preferred installation variant
### 5.3 SELF-ADHESIVE RESITRIX® WATERPROOFING MEMBRANES ON POLYURETHANE/POLYISO FOAM BOARD (PUR/PIR)

<table>
<thead>
<tr>
<th>INSULATION TYPE AS PER DIN EN 13163</th>
<th>LAMINATION / BRAND</th>
<th>PRIMER</th>
<th>WATERPROOFING MEMBRANE</th>
<th>USAGE OF FG PRIMER IN g/m²</th>
<th>ROOF PITCH</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FG 35, full surface</td>
<td>RESITRIX® SK W Full Bond, RESITRIX® SR, RESITRIX® SK Partial Bond</td>
<td>approx. 140 approx. 200</td>
<td>up to 20°</td>
<td>Note the installation conditions of the insulation and bitumen membrane manufacturer. If necessary, take additional measures against slide-off.</td>
</tr>
</tbody>
</table>

**DAA-dh and DAA-ds**
- Also for used roofs, accessible
- In the factory on mineral fleece lamination or
- Non-laminated or
- In the factory with aluminium lamination,
  Only with the following brands:
  - Linitherm PAL
  - Linitherm PAL FD
  - Linitherm PAL for slopes

### 5.4 SELF-ADHESIVE RESITRIX® WATERPROOFING MEMBRANES ON CELLULAR GLASS BOARD (CG)

<table>
<thead>
<tr>
<th>INSULATION TYPE AS PER DIN EN 13167</th>
<th>LAMINATION / DECK</th>
<th>PRIMER</th>
<th>WATERPROOFING MEMBRANE</th>
<th>USAGE OF PRIMER IN g/m²</th>
<th>ROOF PITCH</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>unfaced, without deck and with layer of bitumen</td>
<td>primer should always be used</td>
<td>RESITRIX® SK W Full Bond</td>
<td>not applicable</td>
<td>up to 20°</td>
<td>Note the installation conditions of the insulation and bitumen membrane manufacturer. If necessary, take additional measures against slide-off.</td>
</tr>
<tr>
<td></td>
<td>coated top-side with bitumen at the factory, without deck brand</td>
<td>primer should always be used</td>
<td>RESITRIX® SK W Full Bond</td>
<td>not applicable</td>
<td>up to 20°</td>
<td>Note the installation conditions of the insulation and bitumen membrane manufacturer. If necessary, take additional measures against slide-off.</td>
</tr>
</tbody>
</table>

**DAA-ds**
- Also for used roofs, accessible

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**RESITRIX® Specification Guidelines**

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### 5.5 Self-Adhesive Resitrix® Waterproofing Membranes on Supporting Structures, Un-Insulated

<table>
<thead>
<tr>
<th>Substrates / Supporting Structure</th>
<th>Initial Covering</th>
<th>Primer</th>
<th>Waterproofing Membrane</th>
<th>Usage of Primer in g/m²</th>
<th>Roof Pitch</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wooden form-work, tongue-and-groove type / timber deck</td>
<td>without deck</td>
<td>FG 35, full surface</td>
<td>Resitrix® SK W Full Bond, Resitrix® SR</td>
<td>approx. 140</td>
<td>approx. 200</td>
<td>any</td>
</tr>
<tr>
<td></td>
<td>deck made from tear-resistant bitumen membrane, sand or talc covered, nailed-on</td>
<td>FG 35, full surface</td>
<td>Resitrix® SK W Full Bond, Resitrix® SR</td>
<td>approx. 140</td>
<td>approx. 200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>deck made from cold self-adhesive bitumen membrane with flamed PE release film</td>
<td>primer should always be used</td>
<td>Resitrix® SK W Full Bond, Resitrix® SR</td>
<td>not applicable</td>
<td></td>
<td>Additional measures and/or selection of deck dependent on the type and state of the supporting structure and following coordination with our Technical Department</td>
</tr>
<tr>
<td>Reinforced concrete</td>
<td>without deck</td>
<td>FG 35, full surface</td>
<td>Resitrix® SK W Full Bond, Resitrix® SR</td>
<td>approx. 200</td>
<td>approx. 300</td>
<td></td>
</tr>
<tr>
<td>Pumice concrete</td>
<td>deck made from tear-resistant bitumen membrane, sand or talc covered</td>
<td>FG 35, full surface</td>
<td>Resitrix® SK W Full Bond, Resitrix® SR</td>
<td>approx. 140</td>
<td>approx. 200</td>
<td></td>
</tr>
<tr>
<td>Porous concrete</td>
<td></td>
<td>deck made from cold self-adhesive bitumen membrane with flamed PE release film</td>
<td>primer should always be used</td>
<td>Resitrix® SK W Full Bond, Resitrix® SR</td>
<td>not applicable</td>
<td></td>
</tr>
<tr>
<td>Profiled steel decking</td>
<td>corrugation eaves filler (not EPS)</td>
<td>FG 35, full surface</td>
<td>Resitrix® SK W Full Bond, Resitrix® SR</td>
<td>approx. 140</td>
<td>approx. 200</td>
<td></td>
</tr>
</tbody>
</table>

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Preferred installation variant
### 5.6 SELF-ADHESIVE RESITRIX® WATERPROOFING MEMBRANES ON EXISTING ROOFS  
(RENOVATION WITHOUT ADDITIONAL INSULATION)

<table>
<thead>
<tr>
<th>EXISTING SEAL</th>
<th>DECK / ADDITIONAL MEASURES</th>
<th>PRIMER</th>
<th>WATERPROOFING MEMBRANE</th>
<th>USAGE OF PRIMER IN g/m²</th>
<th>ROOF PITCH</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SPRAY</td>
<td>MANUAL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal bitumen</td>
<td></td>
<td></td>
<td>approx. 140</td>
<td>200</td>
<td>any</td>
</tr>
<tr>
<td></td>
<td>Elastomer bitumen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>APP bitumen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plastic systems (softener-free)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elastomer membranes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid-applied plastic system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PU in-situ foam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Remove bubbles, creases, dirt or unevenness.</td>
<td>FG 35, full surface</td>
<td>RESITRIX® SK W Full Bond</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subsequent shrinkage processes must be ruled out; for this reason, installation is only possible on seals with a functioning horizontal fastening in the roof edge area and in front of vertical surfaces.</td>
<td>RESITRIX® SR</td>
<td>RESITRIX® SK Partial Bond</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 5.7 BONDING WITH RESITRIX® CL ON MINERAL WOOL BOARDS (MW)

<table>
<thead>
<tr>
<th>INSULATION TYPE AS PER DIN EN 13162</th>
<th>LAMINATION / BRAND</th>
<th>TYPE OF BONDING</th>
<th>WATERPROOFING MEMBRANE</th>
<th>USE OF ADHESIVE IN g/m²</th>
<th>ROOF PITCH</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAA-dm</td>
<td>factory coated lamination made from bitumen membrane, sand covered</td>
<td>strip bonding with PU-LMF-02</td>
<td>RESITRIX® CL</td>
<td>approx. 200</td>
<td>up to 20°</td>
<td>Note the insulation manufacturer’s installation conditions. If necessary, take additional measures against slide-off. Full surface bonding in the edge and corner area.</td>
</tr>
<tr>
<td></td>
<td>full surface bonding using hot bitumen</td>
<td>RESITRIX® CL</td>
<td>approx. 1500</td>
<td>up to 20°</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>top-side fleece lamination at the factory or inorganic coating</td>
<td>strip bonding with PU-LMF-02</td>
<td>RESITRIX® CL</td>
<td>approx. 200</td>
<td>any</td>
<td>Preferred installation variant</td>
</tr>
</tbody>
</table>
### 5.8 BONDING WITH RESITRIX® CL ON EPS FOAM BOARD

<table>
<thead>
<tr>
<th>INSULATION TYPE AS PER DIN EN 13163</th>
<th>LAMINATION / BRAND</th>
<th>TYPE OF BONDING</th>
<th>WATERPROOFING MEMBRANE</th>
<th>USE OF ADHESIVE IN g/m²</th>
<th>ROOF PITCH</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAA-dm</td>
<td>Only for unused roofs</td>
<td>deck made from tear-resistant bitumen membrane, sand or talc covered</td>
<td>strip bonding with PU-LMF-02</td>
<td>RESITRIX® CL</td>
<td>approx. 200</td>
<td>any</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>full surface bonding using hot bitumen</td>
<td>RESITRIX® CL</td>
<td>approx. 1,500</td>
<td>any</td>
</tr>
<tr>
<td>DAA-dh</td>
<td>Also for used roofs, accessible</td>
<td>deck made from cold self-adhesive bitumen membrane with flamed PE release film</td>
<td>strip bonding with PU-LMF-02</td>
<td>RESITRIX® CL</td>
<td>approx. 200</td>
<td>any</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>full surface bonding using hot bitumen</td>
<td>RESITRIX® CL</td>
<td>approx. 1,500</td>
<td>any</td>
</tr>
<tr>
<td>unfaced, without deck</td>
<td></td>
<td>strip bonding with PU-LMF-02</td>
<td>RESITRIX® CL</td>
<td>approx. 200</td>
<td>up to 20°</td>
<td></td>
</tr>
</tbody>
</table>

Note the installation conditions of the insulation and bitumen membrane manufacturer. If necessary, take additional measures against slide-off and to prevent the temperature resistance of EPS being exceeded (see also instructions under Section 3, General planning notes).

### 5.9 BONDING WITH RESITRIX® CL ON POLYURETHANE / POLYISO FOAM BOARD (PUR/PIR)

<table>
<thead>
<tr>
<th>INSULATION TYPE AS PER DIN EN 13162</th>
<th>LAMINATION / BRAND</th>
<th>TYPE OF BONDING</th>
<th>WATERPROOFING MEMBRANE</th>
<th>USE OF ADHESIVE IN g/m²</th>
<th>ROOF PITCH</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAA-dh</td>
<td>Also for accessible roofs</td>
<td>unfaced or fleece-laminated at the factory</td>
<td>strip bonding with PU-LMF-02</td>
<td>RESITRIX® CL</td>
<td>approx. 200</td>
<td>up to 20°</td>
</tr>
</tbody>
</table>

Note the insulation manufacturer’s installation conditions. If necessary, take additional measures against slide-off.
### 5.10 Bonding with Resitrix® Cl on Cellular Glass Board (CG)

<table>
<thead>
<tr>
<th>Insulation Type as per DIN EN 13162</th>
<th>Lamination / Brand</th>
<th>Type of Bonding</th>
<th>Waterproofing Membrane</th>
<th>Use of Adhesive in g/m²</th>
<th>Roof Pitch</th>
<th>Comments</th>
</tr>
</thead>
</table>
| DAA-ds
Also for accessible roofs       | unfaced with deck made from bitumen membrane, sand or talc covered | strip bonding with PU-LMF-02 | Resitrix® Cl | approx. 200 | up to 20° | Note the installation conditions of the insulation and bitumen membrane manufacturer. If necessary, take additional measures against slide-off. |
|                                    |                    | full surface bonding using hot bitumen | Resitrix® Cl | approx. 1.500 | up to 20° |          |
| unfaced, without deck and with layer of bitumen | full surface bonding using hot bitumen | Resitrix® Cl | approx. 1.500 | any |          |          |
| top-side coated at the factory with bitumen and with deck made from bitumen membrane, sand or talc covered brand: • Foamglas-Ready Board | strip bonding with PU-LMF-02 | Resitrix® Cl | approx. 200 | up to 20° |          |          |
|                                    | full surface bonding using hot bitumen | Resitrix® Cl | approx. 1.500 | up to 20° |          |          |
| top-side coated with bitumen at the factory, without deck brand: • Foamglas-Ready Board | full surface bonding using hot bitumen | Resitrix® Cl | approx. 1.500 | any |          |          |

Preferred installation variant
### 5.11 Bonding with Resitrix® CL on Supporting Structure, Un-insulated

<table>
<thead>
<tr>
<th>Type of Supporting Structure</th>
<th>Lamination / Brand</th>
<th>Type of Bonding</th>
<th>Waterproofing Membrane</th>
<th>Use of Adhesive in g/m²</th>
<th>Roof Pitch</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wooden formwork, tongue-and-groove type / timber deck</td>
<td>deck made from tear resistant, sand covered bitumen membrane, nailed on</td>
<td>strip bonding with PU-LMF-02</td>
<td>Resitrix® CL</td>
<td>approx. 200</td>
<td>any</td>
<td>Additional measures and/or selection of deck dependent on the type and state of the supporting structure and following coordination with our Technical Department</td>
</tr>
<tr>
<td></td>
<td></td>
<td>full surface bonding using hot bitumen</td>
<td>Resitrix® CL</td>
<td>approx. 1,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>deck made from cold self-adhesive bitumen membrane with flamed PE release film</td>
<td>strip bonding with PU-LMF-02</td>
<td>Resitrix® CL</td>
<td>approx. 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>full surface bonding using hot bitumen</td>
<td>Resitrix® CL</td>
<td>approx. 1,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reinforced concrete</td>
<td>Pumice concrete</td>
<td>Porous concrete</td>
<td>deck made from bitumen weld membrane</td>
<td>strip bonding with PU-LMF-02</td>
<td>Resitrix® CL</td>
<td>approx. 200</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>full surface bonding using hot bitumen</td>
<td>Resitrix® CL</td>
<td>approx. 1,500</td>
<td></td>
</tr>
<tr>
<td></td>
<td>deck made from cold self-adhesive bitumen membrane with flamed PE release film</td>
<td>strip bonding with PU-LMF-02</td>
<td>Resitrix® CL</td>
<td>approx. 200</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>full surface bonding using hot bitumen</td>
<td>Resitrix® CL</td>
<td>approx. 1,500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Preferred installation variant
### 5.12 Bonding with Resitrix® CL on Existing Roofs (Renaissance Without Additional Insulation)

<table>
<thead>
<tr>
<th>Existing Seal</th>
<th>Pre-Treatment</th>
<th>Type of Bonding</th>
<th>Waterproofing Membrane</th>
<th>Use of Adhesive in g/m²</th>
<th>Roof Pitch</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal bitumen • Elastomer bitumen • PU in-situ foam</td>
<td>remove bubbles, creases, dirt or unevenness</td>
<td>strip bonding with PU-LMF-02</td>
<td>Resitrix® CL</td>
<td>approx. 200</td>
<td>any</td>
<td>If necessary, take additional measures against slide-off.</td>
</tr>
</tbody>
</table>

### 5.13 Loose Installation with Mechanical Fixing Using Resitrix® MB/Resitrix® CL

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Protective Layer / Measures Required</th>
<th>Waterproofing Membrane</th>
<th>Roof Pitch</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral wool plates (MW) as per DIN EN 13162 Type DAA-dm only for unused roofs</td>
<td>unfaced or uncoated</td>
<td>Resitrix® MB Resitrix® CL</td>
<td>any</td>
<td>Note the installation conditions of the insulation manufacturer. If necessary, take additional measures against the temperature resistance of EPS being exceeded (see also instructions under Section 2, General Planning Notes). Be aware of the increased membrane overlap and the welding width of 8 cm.</td>
</tr>
<tr>
<td>EPS foam board as per DIN 13163 Type DAA-dm only for unused roofs Type DAA-dh Also for used roofs, accessible</td>
<td>unfaced or uncoated and also non-woven glass fibre, approx. 120 g/m²</td>
<td>Resitrix® MB Resitrix® CL</td>
<td>any</td>
<td></td>
</tr>
<tr>
<td>Polyurethane / Polyiso board (PUR/PIR) as per DIN 13165 Type DAA-dh Also for used roofs, accessible</td>
<td>unfaced or faced at the factory</td>
<td>Resitrix® MB Resitrix® CL</td>
<td>up to 20°</td>
<td></td>
</tr>
<tr>
<td>Supporting structure, uninsulated, made from • wooden framework, tongue-and-groove type/timber deck • reinforced concrete • pumice concrete • porous concrete</td>
<td>without protective layer or with non-woven glass fibre approx. 120 g/m² or with polyester fleece approx. 300 g/m² (depending on the condition of the supporting structure)</td>
<td>Resitrix® MB Resitrix® CL</td>
<td>any</td>
<td></td>
</tr>
<tr>
<td>• Profiled steel decking</td>
<td>corrugation eaves filler, non-flammable</td>
<td>Resitrix® MB Resitrix® CL</td>
<td>any</td>
<td></td>
</tr>
<tr>
<td>Existing seal (existing roof), softener-free</td>
<td>Remove bubbles, creases, dirt and unevenness; subsequent shrinkage processes must be ruled out; for this reason, installation is only possible on waterproofing with a functioning horizontal fastening in the roof edge area and in front of vertical surfaces.</td>
<td>Resitrix® MB Resitrix® CL</td>
<td>any</td>
<td></td>
</tr>
</tbody>
</table>
### 5.14 INSTALLATION OF ALL RESITRIX® WATERPROOFING MEMBRANES UNDER BALLAST OR WEAR LAYER

<table>
<thead>
<tr>
<th>USAGE</th>
<th>SUBSTRATE / INSULATION TYPE</th>
<th>BALLAST / VEGETATION</th>
<th>WATERPROOFING MEMBRANE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not used</td>
<td>insulation type</td>
<td>gravel</td>
<td>RESITRIX® MB</td>
<td>• Types or brands of insulation for PUR / PIR as with mechanical fixation.</td>
</tr>
<tr>
<td></td>
<td>DAA-dm or DAA-dh</td>
<td></td>
<td>RESITRIX® CL</td>
<td>• Note the installation conditions of the insulation manufacturer.</td>
</tr>
<tr>
<td></td>
<td>DUK-dh (for inverted roof)</td>
<td></td>
<td>RESITRIX® SK W Full Bond</td>
<td>• No separating layers are required between the insulating layer and the waterproofing membrane.</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
<td>RESITRIX® SK</td>
<td>• Protective layers may be required between the waterproofing membrane and the ballast / vegetation.</td>
</tr>
<tr>
<td></td>
<td>supporting structure without thermal insulation</td>
<td></td>
<td>RESITRIX® SK Partial Bond</td>
<td>• If necessary, take additional measures against slide-off.</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
<td></td>
<td>• The type and dimensions of the ballast are dependent on the use, wind suction load and static strength of the supporting structure.</td>
</tr>
<tr>
<td></td>
<td>existing roof</td>
<td>extensive vegetation</td>
<td>RESITRIX® SK W Full Bond</td>
<td></td>
</tr>
<tr>
<td>Used, accessible</td>
<td>insulation type</td>
<td>roofs that can be walked on (e.g. terrace structure)</td>
<td>RESITRIX® MB</td>
<td>• When renovating old roofs, the condition of the existing roof structure must be checked first.</td>
</tr>
<tr>
<td></td>
<td>DAA-dh</td>
<td></td>
<td>RESITRIX® CL</td>
<td>• In the case of intensive vegetation, the individual layers including RESITRIX® SK W Full Bond should also be bonded across their full surfaces (compact roof).</td>
</tr>
<tr>
<td></td>
<td>DUK-dh (for inverted roof)</td>
<td></td>
<td>RESITRIX® SK W Full Bond</td>
<td>• In the case of inverted roofs, the RESITRIX® roof waterproofing should also be bonded across its entire surface.</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
<td>RESITRIX® SK</td>
<td></td>
</tr>
<tr>
<td></td>
<td>supporting structure without thermal insulation</td>
<td></td>
<td>RESITRIX® SK Partial Bond</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>existing roof</td>
<td>extensive vegetation, intensive vegetation</td>
<td>RESITRIX® SK W Full Bond</td>
<td></td>
</tr>
</tbody>
</table>
6. Additional notes for the individual installation variants

6.1 loose installation with mechanical fixing

General substrate requirements
- even, free from tension, bubbles, creases, sharp edges, burrs and rough sections, damaging joints, etc.
- if necessary, suitable separating layers should be installed on unsuitable substrates.
- additional base tie-in with individual fasteners.

Information about mechanical fixation
Number and arrangement of individual fasteners following consultation with our Technical Department.

Overlap width of the sealing layers
- at least 10 cm
- at least 13 cm on unfaced rigid polystyrene foam with non-woven glass fibre, building material class A2, at least 120 g/m²

Seam connection
- hot-air welding

Welding width
- at least 100 mm

6.2 installation with ballasting/wearing layer (for green vegetation, see section 6.4)

General substrate requirements
- even, free from tension, bubbles, creases, sharp edges, burrs and rough sections, damaging joints, etc.
- if necessary, suitable separating layers should be installed on unsuitable substrates.
- additional edge fixation with individual fasteners on
- supporting shell made of trapezoidal steel profile,
- on EPS rigid foam insulation and

Ballasting/wearing layer
- gravel (unused roof)
- wear layer for accessible roof

Thickness/weight
- complies with DIN EN 1991, at least 5 cm
- complies with DIN EN 1991

Protective layer above sealing layer
- Protective layer required
- protective layer and drainage layer as per the planner’s specifications

Roof pitch
- max 5°

Overlap width of the sealing layers
- at least 5 cm
- at least 100 mm on unfaced rigid polystyrene foam

Seam connection
- hot-air welding

Welding width
- at least 50 mm

If the construction is an inverted roof with extruded polystyrene hard foam (XPS), type DUK-dm, dh, ds, the specifications as per the relevant building control certification must also be observed.
### 6.3 Bonded Designs

<table>
<thead>
<tr>
<th>Substrate Bonding</th>
<th>Full Surface Bonding Using Hot Bitumen</th>
<th>Strip Bonding with PU Adhesive PU-LMF-02</th>
</tr>
</thead>
</table>

**Waterproofing Membrane(s)**
- RESITRIX® SK W Full Bond
- RESITRIX® SR
- RESITRIX® SK Partial Bond

**General Substrate Requirements**
- Dust and grease-free, softener-free, even, wind suction-resistant, free from tension, bubbles, creases, sharp edges, burrs and rough sections, damaging joints
- Frost-free (ambient temperature at least +5 °C)
- Additional edge fixation with individual fasteners on
  - Supporting shell made of trapezoidal steel profile,
  - On EPS rigid foam insulation and
  - For loose, raised-up joints and junctions
- Dry
- Free of visible water
- Fog or dew moistens possible

**Roof Pitch**
- Unlimited, if the substrate is stable and wind suction-resistant.
- Over a pitch of 5°, stable bitumen must be used.
- Unlimited, if the substrate is stable depending on the roof pitch. Otherwise, if necessary, also carry out mechanical fixation to the upper edge of the membrane as a temporary slide-off guard.

**Overlap Width**
- At least 5 cm
- At least 8 cm on unfaced rigid polystyrene foam

**Seam Connection**
- Hot-air welding

**Welding Width**
- At least 50 mm

### 6.4 Installing RESITRIX® SK W Full Bond Under Roof Vegetation

<table>
<thead>
<tr>
<th>Installation Variant</th>
<th>Full Surface Self-Adhesive with Primer</th>
<th>Loose Installation without Surface Primer, Including Mounting Tackling</th>
<th>Loose Installation without Surface Primer, with Mechanical Fixing</th>
</tr>
</thead>
</table>

**General Substrate Requirements**
- Dust and grease-free, softener-free, even, wind suction-resistant, free from tension, bubbles, creases, sharp edges, burrs and rough sections, damaging joints
- Frost-free (ambient temperature at least +5 °C)
- Additional edge fixation with individual fasteners on
  - Supporting shell made of trapezoidal steel profile,
  - On EPS rigid foam insulation and
  - For loose, raised-up joints and junctions
- Dry
- If necessary, suitable separating layers must be arranged on non-supporting substrates.
- Frost-free (ambient temperature at least +5 °C)

**Information Regarding Specialist Installation Variant**
Choice of installation variant depending on the substrate conditions and vegetative roof system used, especially with regard to wind suction resistance (use of SFS fasteners in the case of mechanical fixing to profiled steel decking). To avoid water leaks in the event of damage and/or to ensure positional stability, full surface self-adhesive is recommended as per the applicable flat-roof guidelines. Water leaks can also be suppressed by using small areas of night joint seals within the thermal insulation.

**Information on Roof Vegetation**
Extensive and intensive vegetation are possible in single and multi-layer constructions. The installation regulations of the respective vegetation manufacturer must also be observed.
7. Selected roof structures | Examples of installation

7.1 BONDED INSTALLATION

**SUPPORTING STRUCTURE**

Reinforced concrete / pumice concrete / porous concrete

- RESITRIX® SK W Full Bond with FG 35
- mineral wool, coated on the top side
- bituminous vapour barrier membrane on undercoat
- concrete

- RESITRIX® SK W Full Bond with FG 40
- unfaced rigid polystyrene foam
- bituminous vapour barrier membrane on undercoat
- concrete

- RESITRIX® SK W Full Bond with FG 35
- PUR/PIR foam
- bituminous vapour barrier membrane on undercoat
- concrete

- RESITRIX® SK W Full Bond with FG 35
- cellular glass in hot bitumen, with deck made from bitumen membranes in hot bitumen
- concrete

Wooden formwork, tongue-and-groove type / timber deck

- RESITRIX® SK W Full Bond with FG 35
- timber

7.2 MECHANICAL FIXING

**SUPPORTING STRUCTURE**

Profiled steel decking (coated)

- RESITRIX® MB
- mineral wool
- Alutrix® 600 / Alutrix® FR
- profiled steel decking

- RESITRIX® MB
- Non-woven glass fibre
- EPS foam
- Alutrix® 600 / Alutrix® FR
- profiled steel decking

- RESITRIX® MB
- PUR / PIR foam
- Alutrix® 600 / Alutrix® FR
- profiled steel decking

Wooden formwork, tongue-and-groove type / timber deck

- RESITRIX® MB
- non-woven glass fibre
- timber
7.3 LOOSE INSTALLATION WITH GRAVEL BALLAST

**SUPPORTING STRUCTURE**

Reinforced concrete / pumice concrete / porous concrete

- gravel
- protective layer
- RESITRIX® MB
- mineral wool
- bituminous vapour barrier membrane on undercoat
- concrete

- gravel
- protective layer
- RESITRIX® MB
- EPS foam
- bituminous vapour barrier membrane on undercoat
- concrete

- gravel
- protective layer
- RESITRIX® MB
- PUR/PIR foam
- bituminous vapour barrier membrane on undercoat
- concrete

7.4 ACCESSIBLE ROOFS

**SUPPORTING STRUCTURE**

Reinforced concrete / pumice concrete / porous concrete

- terrace construction on suitable protective layer
- RESITRIX® MB / RESITRIX® Sk W Full Bond
- EPS foam
- bituminous vapour barrier membrane on undercoat
- reinforced concrete

- terrace construction on suitable protective layer
- RESITRIX® MB / RESITRIX® Sk W Full Bond
- PUR/PIR foam
- bituminous vapour barrier membrane on undercoat
- reinforced concrete
7.5 INSTALLATION UNDER VEGETATION

**SUPPORTING STRUCTURE**

Reinforced concrete / pumice concrete / porous concrete

- vegetative roof system (extensive)
- RESITRIX® SK W Full Bond
- mineral wool
- bituminous vapour barrier membrane on undercoat
- concrete

- vegetative roof system (extensive or intensive)
- RESITRIX® SK W Full Bond
- EPS foam
- bituminous vapour barrier membrane on undercoat
- concrete

- vegetative roof system (extensive or intensive)
- RESITRIX® SK W Full Bond
- PUR/PIR foam
- bituminous vapour barrier membrane on undercoat
- concrete

(timber tongue and groove framework / timber deck)

- lightweight roof vegetative roof system (extensive)
- RESITRIX® SK W Full Bond
- timber

- vegetative roof system (extensive or intensive)
- RESITRIX® SK W Full Bond
- cellular glass with deck made from bitumen membranes in hot bitumen
- reinforced concrete

- vegetative roof system (extensive or intensive)
- RESITRIX® SK W Full Bond
-EPS foam
-burituminous vapour barrier membrane on undercoat
-reinforced concrete

7.6 INSTALLATION IN THE INVERTED ROOF AREA

**SUPPORTING STRUCTURE**

Reinforced concrete

- slab paving on suitable protective layer
- XPS foam
- RESITRIX® SK W Full Bond with FG 35
- reinforced concrete
8. Connections and terminations

8.1 CONSTRUCTION OF CONNECTIONS AND TERMINATIONS ON PITCHED AND VERTICAL SURFACES

Connection or termination variant

- full surface / partial self-adhesive on surface primer
- full surface welding with hot-air hand-held welding device

Material type of the separate flashing strips

- RESITRIX® SK W Full Bond
- RESITRIX® MB
- RESITRIX® SR
- RESITRIX® SK Partial Bond
- RESITRIX® SK W Full Bond
- RESITRIX® SR
- RESITRIX® SK Partial Bond

Area of application

- on pitched and vertical connection surfaces

General substrate requirements

- dust and grease-free, softener-free, even, free from tension, bubbles, creases, sharp edges, burrs and rough sections, damaging joints
- dry and frost free (ambient temperature at least 5°C)

Substrate variants

- metallic substrates, uncoated
- bituminous materials
- absorbent or porous substrates (concrete, brick, plaster, timber deck)
- hard PVC, polyester, polycarbonate, polyurethane, mineral wool (faced)
- various plastic and rubber membranes, only with inlays or lamination, EPS (see below)

Seam connection

- hot-air welding

Overlap width

- at least 5 cm

Welding width

- at least 50 mm

1) Only useful for small areas that require welding.
2) Transitions to alternative materials affect the whole system and therefore cannot be safeguarded with one material warranty. Technical execution should only take place following consultation with our Technical Department.
3) Connections to non stable, non wind suction resistant or non adherable substrates can be carried out loosely with mechanical fixing on the top side. In the case of connection heights above 50 cm, mechanical intermediate fixing is required.

8.2 CONSTRUCTION OF CONNECTIONS/TRANSITIONS WITHIN THE WATER-CARRYING LAYER

Substrate variant

- connection or termination at metallic materials
- connection or termination at plastics
- connection to alternative seals, bitumen-compatible, softener-free

Material type of the sealing layer

- RESITRIX® SK W Full Bond / RESITRIX® SR / RESITRIX® SK Partial Bond

Pretreatment of the cleaned substrate

- degreasing with G 500 cleaner, no surface primer
- priming with FG 35

Connection with transitional area

- hot-air welding

Overlap width

- at least 5 cm

Welding width

- at least 50 mm

1) Connections and terminations require prior consultation with our Technical Department.
2) Connections to alternative seals cannot be safeguarded with one material warranty, since differences in the formula used within alternative seals, associated with changes within the physical parameters, cannot be ruled out.
9. Notes on corner construction

Corners are best formed with flat, pre-fabricated cut sections made from RESIFLEX® SK. These cut sections are punched ready-moulded and therefore allow the fast, reliable and convenient construction of internal and external corners. The corner sections comprise 3 parts, a circle with a cut-out notch, a full circle and an oval tongue. The required cut sections can also be simply cut to size directly on the construction site from the membrane materials so that there is virtually no loss of material.

To maintain the overlap width, the diameter and width of the cut sections must be at least 180 mm. The individual cut sections are welded to the full surface of the flashing strips with an overlap width of at least 40 mm using hot air. Hot-air welding is also used to weld the seam connections of the individual cut pieces.

Further information on the positioning and installation of cut sections can be found in the RESITRIX® installation instructions.

10. Technical drawings, standard details

10.1 FASCIA CAPS

10.1.1 EIFS parapet upstand (fascia cap)

1. Concrete layer
2. Vapour barrier membrane, e.g. V60 S4 Al, bituminous undercoat
3. PUR/PIR insulation, bonded as per the manufacturer’s specifications
4. RESITRIX® SK W Full Bond, bonded to surface primer FG 35
5. RESITRIX® SK W Full Bond welded to roof membrane
6. RESITRIX® SK W Full Bond bonded across its full surface to surface primer FG 35
7. Pressure-resistant insulation
8. Multi layer board throughout
9. Aluminium parapet covering or similar, mechanically fastened

10.1.2 Parapet upstand

1. Concrete layer
2. Vapour barrier membrane, e.g. G200 S4 Al, bituminous undercoat
3. PUR/PIR insulation, bonded as per the manufacturer’s specifications
4. RESITRIX® SK W Full Bond, bonded to surface primer FG 35
5. RESITRIX® SK W Full Bond welded to surface membrane
6. RESITRIX® SK W Full Bond bonded across its full surface to surface primer FG 35
7. Pressure-resistant insulation
8. Multilayer board throughout
9. Aluminium parapet covering or similar, mechanically fastened
10.2 DRAINAGE | GUTTER

1. Concrete component
2. Vapour barrier membrane, e.g. V60 S4 AI, bituminous undercoat
3. PUR/PIR insulation, bonded as per the manufacturer’s specifications
4. RESITRIX® SK W Full Bond, bonded to surface primer FG 35
5. Wooden plank
6. Pressure-resistant insulation
7. Multilayer board throughout
8. Iron brackets
9. Metal closure
10. RESITRIX® SK W Full Bond bonded to metal closure
11. FG 35 surface primer to metal closure
12. Eaves gutter, e.g. stainless steel

10.3 TERMINATION BAR

1. Concrete layer
2. Vapour barrier membrane, e.g. G200 S4 AI, bituminous undercoat
3. PUR/PIR insulation, bonded as per the manufacturer’s specifications
4. RESITRIX® SK W Full Bond, bonded to surface primer FG 35
5. RESITRIX® SK W Full Bond sleeve welded to surface membrane
6. Hose clamp
7. Vent pipe
8. Elastic sealant

10.4 ROOFLIGHT WATERPROOFING

1. Concrete layer
2. Vapour barrier membrane, e.g. V60 S4 AI, bituminous undercoat
3. PUR/PIR insulation, bonded as per the manufacturer’s specifications
4. RESITRIX® SK W Full Bond, bonded to surface primer FG 35
5. RESITRIX® SK W Full Bond welded to surface membrane
6. RESITRIX® SK W Full Bond flashing strips bonded to rooflight
7. Upper termination 4 cm welded

10.5 PENETRATION | VENT PIPE

1. Concrete layer
2. Vapour barrier membrane, e.g. G200 S4 AI, bituminous undercoat
3. PUR/PIR insulation, bonded as per the manufacturer’s specifications
4. RESITRIX® SK W Full Bond, bonded to surface primer FG 35
5. RESITRIX® SK W Full Bond sleeve welded to surface membrane
6. Hose clamp
7. Vent pipe
8. RESITRIX® SK W Full Bond flashing strips bonded to surface primer FG 35
10.6 TERRACE DOOR SEALING

1. Concrete layer
2. Vapour barrier membrane, V60 S4 Al bituminous undercoat
3. PUR/PIR insulation, bonded as per the manufacturer’s specifications
4. RESITRIX® SK W Full Bond, bonded to surface primer FG 35
5. Drainage mat
6. Compensation layer
7. Concrete plate
8. Compressed joint sealing strip
9. Synthetic fleece
10. Grating
11. RESITRIX® SK W Full Bond welded to surface membrane
12. Step protection sheet

10.7 OUTLETS | ROOF DRAINS

10.7.1 Two-part outlet

1. Concrete layer
2. Vapour barrier membrane, e.g. G200 S4 Al, bituminous undercoat
3. PUR/PIR thermal insulation
4. RESITRIX® MB mechanical fastened
5. Factory-side connecting sleeve 500 x 500 mm
6. Horizontal base plate
7. M leaf trap with retaining element
8. Parapet drain outlet Ø 110
9. RESITRIX® SK W Full Bond welded to surface membrane
10. Base tie-in by means of bent metal sheet
11. Vertical insulation (PUR/PIR)
12. RESITRIX® SK W Full Bond bonded across its full surface to surface primer FG 35
13. Pressure-resistant insulation
14. Multilayer board throughout
15. Aluminium parapet covering or similar, mechanically fastened
16. Compriband with permanently elastic sealing

10.7.2 Safety drain

1. Concrete layer
2. Vapour barrier membrane, e.g. G200 S4 Al, bituminous undercoat
3. PUR/PIR thermal insulation
4. RESITRIX® MB mechanical fastened
5. Factory-side connecting sleeve 500 x 500 mm
6. Horizontal base plate
7. M leaf trap with retaining element
8. Parapet drain outlet Ø 110
9. RESITRIX® SK W Full Bond welded to surface membrane
10. Base tie-in by means of bent metal sheet
11. Vertical insulation (PUR/PIR)
12. RESITRIX® SK W Full Bond bonded across its full surface to surface primer FG 35
13. Pressure-resistant insulation
14. Multilayer board throughout
15. Aluminium parapet covering or similar, mechanically fastened
16. Compriband with permanently elastic sealing

10.8 SEALING-OFF

1. Concrete layer
2. Vapour barrier membrane, e.g. G200 S4 Al, bituminous undercoat
3. PUR/PIR insulation, bonded as per the manufacturer’s specifications
4. RESITRIX® SK W Full Bond, bonded to surface primer FG 35
5. RESITRIX® SK W Full Bond, weld with hot air
6. Compriband with permanently elastic sealing
10.9 EXPANSION JOINT WITH RESIFLEX®

1. Concrete ceiling
2. V60 S4 Al vapour barrier membrane, bituminous primer
3. PUR/PIR thermal insulation, bonded according to the manufacturer’s specifications
4. RESITRIX® SK Partial Bond, bonded to FG 35 surface primer
5. RESIFLEX® SK, welded onto base membrane
6. RESIFLEX® SK
7. Soft insulation

10.10 FLEXIBLE WALL CONNECTION WITH RESIFLEX®

1. RESITRIX® SK W Full Bond, fully bonded to FG 35 surface primer
2. RESIFLEX® SK, welded onto RESITRIX® SK W Full Bond
3. Reinforcement and adhesive-free zone
4. Full-surface primer with FG 35
5. RESIFLEX® SK expansion joint tape
6. Wall connection profile with finish on the upper side