

▶▶ Rhepanol® fk

Roofing membranes
Edition 2015



Application manual

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This application manual contains the basic rules for working with the Rhepanol fk roofing membranes. The Guidelines for the Design and Application of waterproofing - Flat Roof Guidelines - of the International Federation for the Roofing Trade (IFD) are considered. Project-related, detailed solutions are provided by our specialists.

Requirements for correct application:

- If Rhepanol fk is installed on roofs with a slope of less than 2% where ponding water is to be expected, according to the generally accepted code of practice (Flat Roof Guidelines), specific measures are to be taken: in the case of Rhepanol fk, this means laying under gravel or coating with PIB paint containing copper particles. If, for structural or visual reasons, this is not possible or desirable, on these areas Rhepanol fk with welding edge is to be applied.
- The supporting deck structure has to meet the technical requirements, especially for load-bearing capacity, deflection, anchorage and drainage.
- Solid, clean, dry and even roof surfaces.
- Substrates must be smooth, free from open cracks, concrete nibs and sharp projections (e. g. chippings).
- Joints have to be formed according to requirements, as their width or movement may impede the performance of the roof seal.
- Labour standards and safety regulations must be adhered to, if necessary, ask for our safety data sheets.
- National standards and regulations must be observed.

Standards and technical rules

Instructions of EN 1991-1-4 must be observed for all fasteners. Additionally, the Technical Rules for Roofs with Coverings – Instructions for Flat Roofs – and the Technical Rules for Metal Works must be observed.

Manufacturer's installation instructions as of October 2015. Technical changes reserved.

Rhepanol® fk

- The optimal safety membrane for waterproofing flat roofs.
- For easy, quick and reliable application.
- Long-term proven on more than 100 million m² of roofs.
- Is a product based on the proven raw material polyisobutylene (PIB)
 - with an industrially prefabricated self-sealing edge
 - with an integrated highly tear-resistant synthetic fleece.

The self-sealing edge makes it easier to seal the seams and provides a permanently secure joint. The fleece backing provides additional protection against stresses originating from the substrate. Furthermore, the fleece backing allows diffusion and ensures secure fastening onto the substrate.

Range of application

- As a roofing membrane
 - in mechanically fastened layer build-ups (Gripfix system).
 - in loosely laid layer build-ups with ballast.
 - in bonded layer build-ups.
- Rhepanol fk with a double-sided self-sealing edge is used for waterproofing expansion joints and flashings.
- Rhepanol f (without synthetic fleece) is used for individually formed details.
- Resistant to atmospheric influence such as UV radiation or exhaust gas from industrial and heating plants.
- Remains extremely flexible, even at temperatures as low as -60°C .
- Outstanding resistance to natural ageing.
- Free of plasticizers, resistant to rotting, non-porous (factory high-frequency testing).
- Resistant to flying sparks and radiant heat according to DIN CEN/TS 1187, confirmed by official test certificates, class E.

Material properties

- Roofing membrane according to EN 13956.
- Bitumen-resistant.
- Weather-resistant, even without additional surface protection.
- Not resistant to: organic solvents such as benzene, toluene, paraffin, trichloroethylene; solvent-containing materials such as lacquers, paints; fats, oils, such as oily cements, forming oils.

Rhepanol® fk with self-sealing edge system

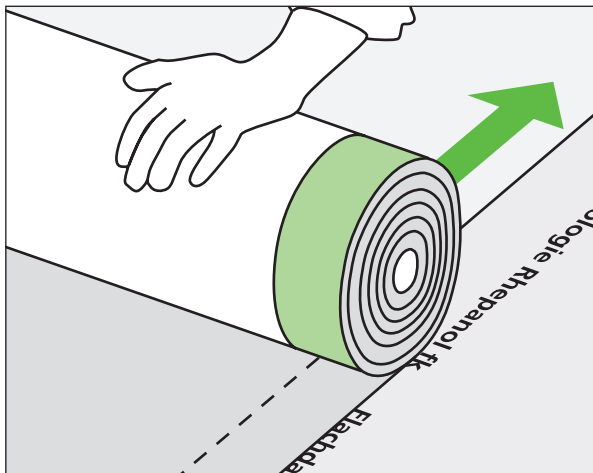
Rhepanol fk ensures quick and easy application, because not only does the roofing membrane Rhepanol fk itself have a self-sealing edge, but also the cover tape and prefabricated details such as internal and external corners or collars.

Application is extremely simple:

- Clean the seam area (see page 11).
- Peel off the protective release paper.
- Align the prefabricated detail or seam and press it on.
- Roll on.
- Sealed.

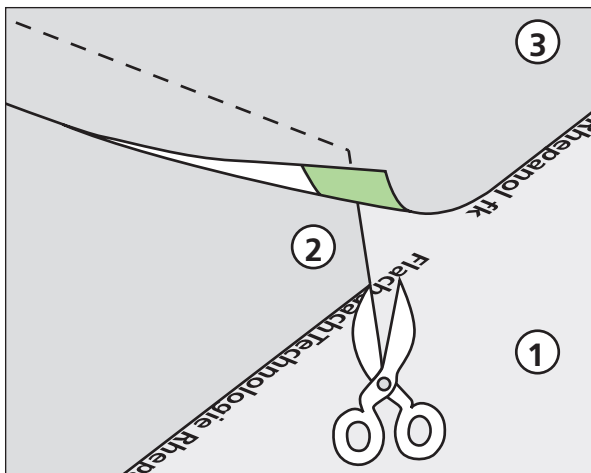
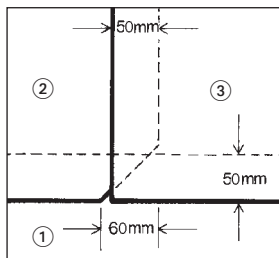
Sealing the roof area with Rhepanol® fk

- Unroll the roofing membranes.
- Longitudinal seams and cross joints should overlap by 50 mm.
- Edge markings (lettering) simplify alignment with a seam overlap of 50 mm.
- If cover tape is used, cross joints should be staggered by at least 300 mm.
- If possible, avoid seams against the water flow. Otherwise secure seams with Rhepanol paste.

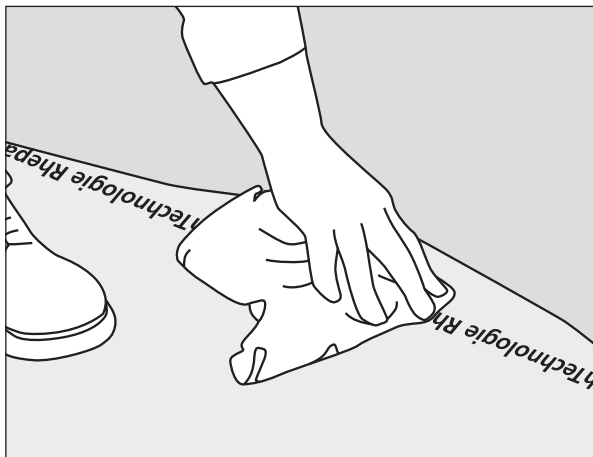


- Cut off the corner of the lower membrane (before pulling out the release paper).

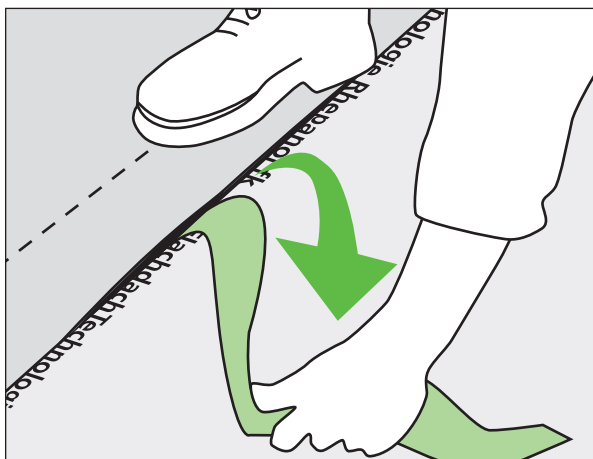
- ① – ③ Application order of the membranes
② Lower membrane with cut-off corner



- The seam area must be clean and dry.
- Cleaning with Rhepanol solvent-welding agent is generally necessary. To achieve this, wipe the seam area with a clean and dry cloth. Allow to evaporate.



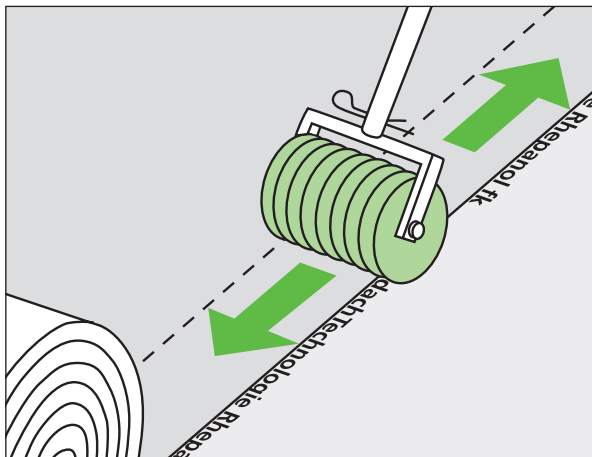
- Pull out the release paper and tread down the self-sealing edge.
- Avoid folds or pleats in the seam.



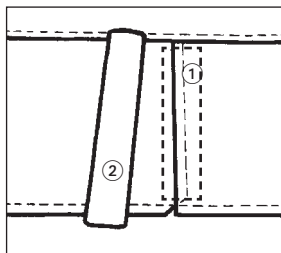
- Press on the longitudinal seam with the Rhepanol universal roller (see page 108).

Note:

Fixed rollers are not suitable because they can't adapt themselves on uneven substrates.



- With Rhepanol fk mechanically fastened with Gripfix system, first put Gripfix strips under the cross joints. This is done by placing a Gripfix strip along the centre of the cross joint. Do not fasten the Gripfix strip mechanically.
- Cut a 100 or 150 mm wide Rhepanol cover tape to size to overlap all seams by 50 mm.
- Round off the corners.
- Clean the cross joint area (see page 11).

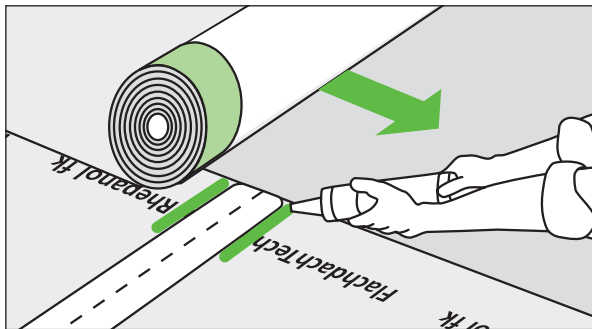


- ① Gripfix strips
- ② Rhepanol cover tape

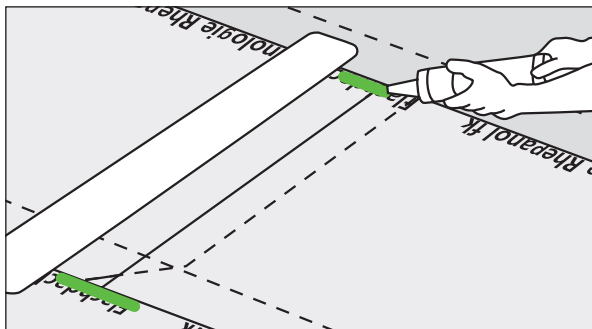
- At the membrane edges, apply Rhepanol paste in approx. 4 mm thick and min. 40 mm long beads, each projecting 10 mm.

This will prevent capillary action.

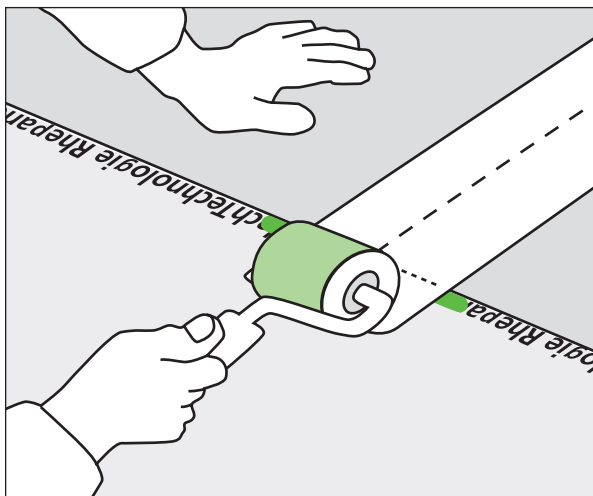
like this ...



... or this



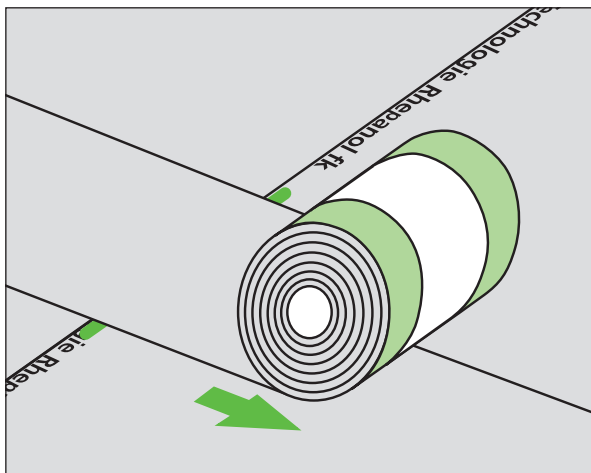
- Place stress-free Rhepanol cover tape over the centre of the joint and roll it on thoroughly.
- At the T-joint, roll on against, as well as parallel to the membrane edge. Make sure not to squeeze out the paste.



Alternatively:

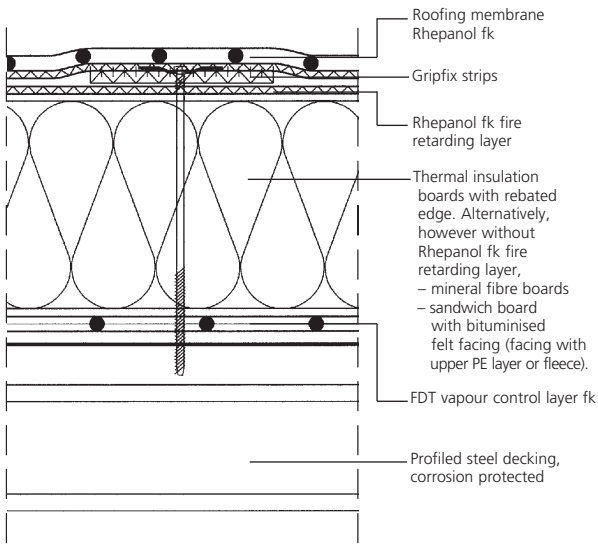
In case of non-staggered cross joints, seal the seam areas with 250 mm wide Rhepanol fk with double-sided self-sealing edge.

In case of mechanical fastening with Gripfix system, first put Gripfix strips under the cross joints (see page 24).



Application techniques for Rhepanol[®] fk

- The mechanical fastening of Rhepanol fk is only done with the Gripfix system, mechanical fastening at the seams is not allowed.



Measuring

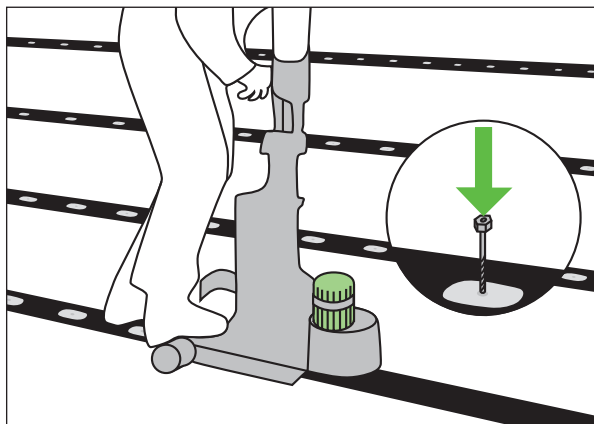
- Measure the spacing of the Gripfix strips according to the wind uplift calculation. The Gripfix strips should run perpendicular to the direction of the roofing membrane Rhepanol fk. The maximum spacing between Gripfix strips must not exceed 1.2 m. With supporting decks of profiled steel decking or timber boarding, the Gripfix strips run perpendicular to the span direction of the sheets or boards.

Unrolling the Gripfix strips

Unroll Gripfix strips and provisionally fix them with fasteners.

Fastening the Gripfix strips

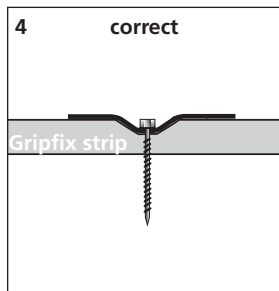
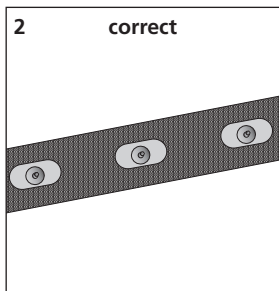
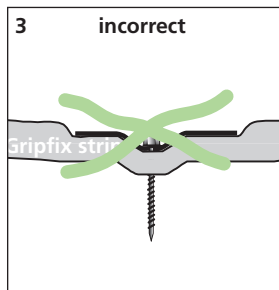
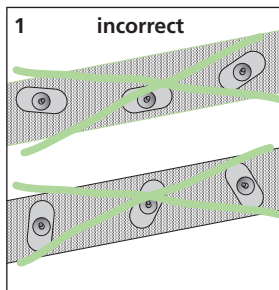
Fasten the Gripfix strips through the middle. Use fasteners with washers of max. 50 mm width. For fastener spacing see wind uplift calculation.



Do not place any fasteners off a (virtual) Gripfix strip centre line and do not twist the washers (sketch 1). Place the fasteners at the centre of the Gripfix strip and align the washers (with the long side) parallel to the Gripfix strip (sketch 2).

Avoid causing depressions by screwing the screws in too deep (sketch 3).

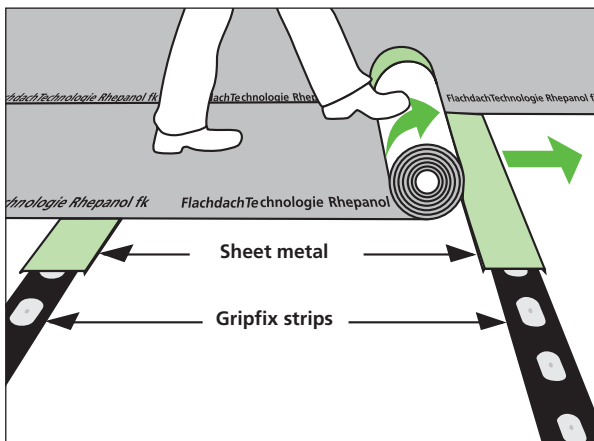
Screw in the fasteners that the washers are flat and flush with the roof surface (sketch 4).



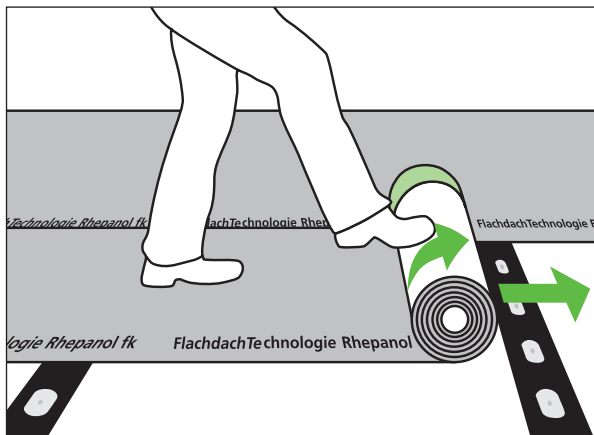
■ Unrolling the roofing membrane Rhepanol fk

When unrolling the membrane, it is immediately velcro-fixed to the Gripfix strips. For a better alignment of the membrane roll, it is recommended **temporarily** covering the Gripfix strips with sheet metal or foil strips prior to unrolling the membrane. Thus, immediate velcro-fixing during alignment of the roll is prevented.

While unrolling with uncovered Gripfix strips, correction of the position is possible only between the Gripfix strips. Therefore, unrolling of the membrane is done in sections between the Gripfix strips.



You must not try to correct the position of the membrane by tearing it off the Gripfix strips with force and fixing it again by rolling on.



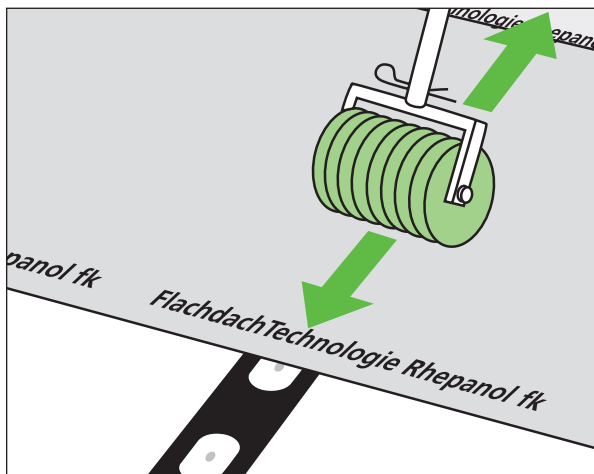
- **Sealing the longitudinal seams of Rhepanol fk (see pages 11 to 13).**

- **Gripfix strips must also be placed under the cross joints (see pages 14 to 17).**

This is done by placing a Gripfix strip along the centre of the cross joint. The Gripfix strip is not fastened mechanically.

- **Rolling onto the Gripfix strip**

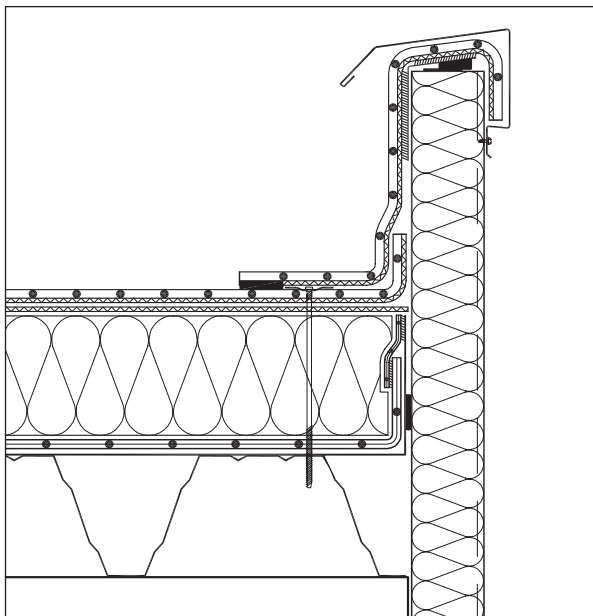
Position stability of the roofing membrane Rhepanol fk is **achieved by rolling over** the Gripfix strip **at least twice** (incl. cross joints) with the universal roller.



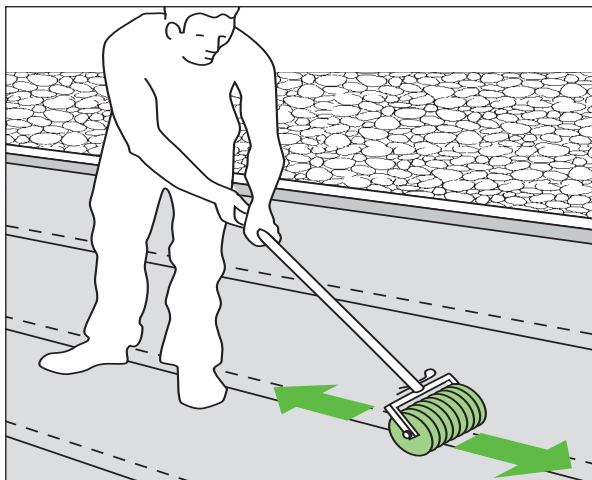
- At all flashings and trims, rooflights etc. the layer build-up must be specially secured by circumferential rows of fasteners through the roofing membrane.

Alternatively, for perimeter fixing, Gripfix strips can be used.

The required number of fasteners in both cases is at least 4 per m.



- Loosely lay Rhepanol fk and secure against wind uplift by gravel ballast.
- Protection layer may be necessary, e.g. FDT protection layer or FDT synthetic fleece 300 g/m².
- At all flashings and trims, rooflights etc. the layer build-up must be secured by circumferential rows of fasteners through the roofing membrane. The required number of fasteners is 4 per m.



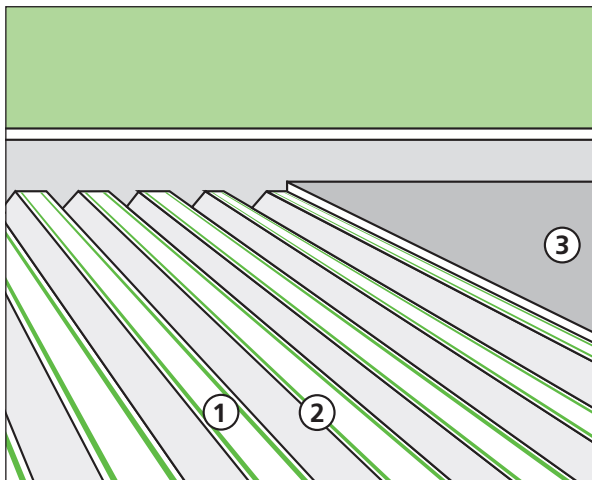
**FDT adhesive U:
for bonding the thermal
insulation**

- ① Supporting deck or vapour control layer
- ② Apply FDT adhesive U in stripes (in case of profiled steel decking, at the corrugation edges)
- ③ Thermal insulation for bonded roof built-ups.

Application on even substrates with FDT application trolley Universal and FDT adapter or FDT bonding trolley 1 m.

FDT adhesive U application instructions (see page 105) and recommendations on the adhesive containers.

Vapour control layers as bonding substrates must not have a PE facing or talcum coating.



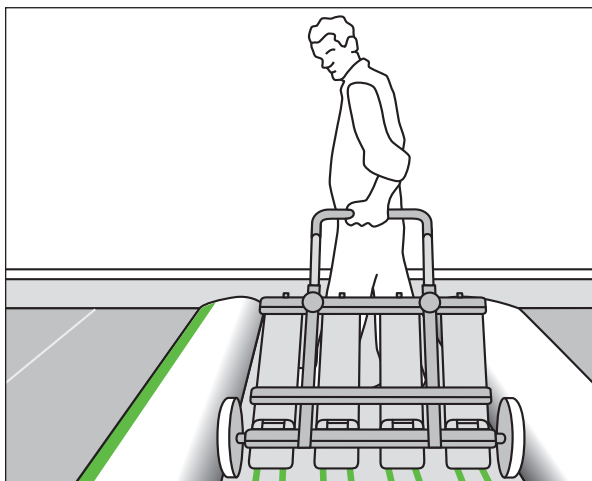
FDT roofing membrane adhesive or Rhepanol adhesive 90: for bonding the roofing membrane

- Unroll the Rhepanol fk, align it and fold back each membrane in half along its length.
- Apply the adhesive and fold back the Rhepanol fk.

- Seal the seams (see pages 11 to 17).

- Alternatively, you can use the roll-on technique.

Application instructions for FDT roofing membrane adhesive or Rhepanol adhesive 90 see page 104, 106 and note the recommendations on the adhesive containers.



Flashings and trims

Rhepanol fk - the reliable flashing material

The performance of a flat roof significantly depends on the functional efficiency of flashings and trims. Rhepanol fk is the reliable flashing material for these purposes.

Decisive advantages

- Rhepanol fk is flexible and ensures effective movement compensation.
- Rhepanol fk is easily adaptable to all upstands.
- When laying Rhepanol fk roofing membranes, at the area of roof edge trims, bracket mounted eaves gutters and wall flashings also backed Rhepanol coated metal sheets can be used.
- The corresponding flashing and trim profiles are cut from Rhepanol coated metal sheets and bent as required like galvanized sheets, depending on the local conditions.

Important aspects for correct application:

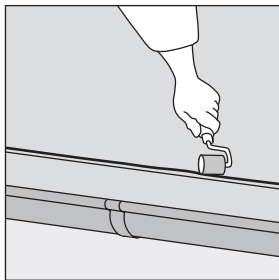
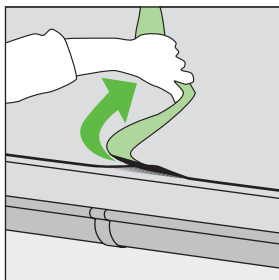
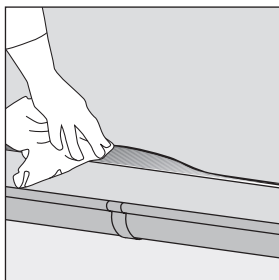
- In order to avoid capillary action at overlapping membrane edges of T-joints, Rhepanol paste must always be applied (see pages 15 and 101).
- Valley areas are left unbonded at a width of 200 mm.

At all flashings and trims, rooflights etc. the layer build-up must be specially secured by circumferential rows of fasteners through the roofing membrane.

Alternatively, for perimeter fixing, Gripfix strips or the FDT fastening profile can be used. In general, at least 4 fasteners per metre are required.

- The flashing strips must be sufficiently fixed. If the flashing membrane is bonded with Rhepanol contact adhesive 50, at flashing heights over 200 mm a full-size adhesive bonding is necessary. Valley areas are left unbonded at a width of 200 mm to allow movement compensation.
- Sealings of flashings and trims must be secured against wind intrusion by bonding, clamping or full-size fastening.

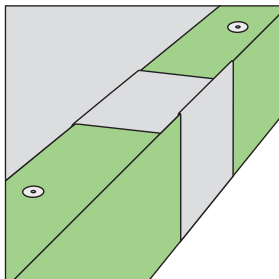
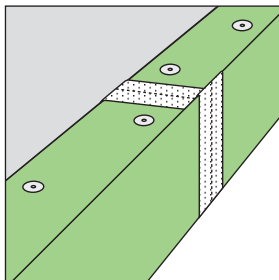
- After professional installation of the Rhepanol coated metal sheet flashing and trim profiles, flashing against the Rhepanol fk roofing membranes or trim strips is carried out. The seam area must be clean and dry. Wipe this area with a Rhepanol solvent-welding agent soaked cloth.
- Then peel off the protective release paper of the Rhepanol fk and firmly press and roll on the self-sealing edge. Avoid folds or pleats in the seam.



- In order to avoid capillary action at profile joints, prior to applying the Rhepanol fk trim strips, the membrane edges of the 150 mm wide Rhepanol h strips must be sealed with Rhepanol paste (page 50).
 - The bent and de-burred Rhepanol coated metal sheets are fastened at a spacing of 150 mm in a staggered pattern with suitable screws.
 - If required for wind security or stiffness reasons, additional stiffeners or continuous stiffening profiles should be installed (see also page 46 et sqq.).
 - The integrated self-sealing edge of Rhepanol fk allows for seam connection with the Rhepanol coated metal sheet without open flame, hot air or solvent welding or additional adhesives!
- At all flashings and trims make sure that seam connections are not in the vertical area (up slope) and that the seams do not have to take any peeling or shearing forces.
- Note:**
Rhepanol coated metal sheets must not be used as linear fastenings for bearing horizontal forces!

1. with Rhepanol h strips

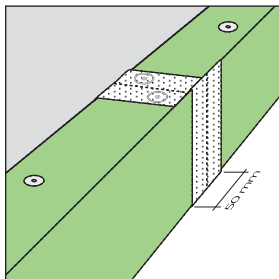
- Rhepanol coated metal sheets (de-burred cut edges) are applied with a clearance of 4 mm (profile length max. 2 m). With profile lengths exceeding 2 m, the joint clearance must be 10 mm.
- Cover the joint area with 38 mm wide FDT adhesive tape (upper figure).
- Afterwards, a 150 mm wide Rhepanol h strip is applied which is homogeneously welded with hot air (lower figure).

**Note:**

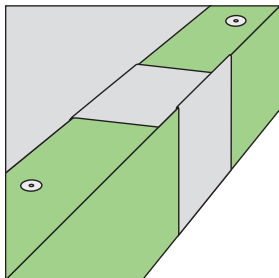
Select the correct welding temperature and speed, which should be checked by performing test welds before starting to work. The basic temperature of the handheld hot-air welder is approx. 460 °C.

2. with Rhepanol cover tape

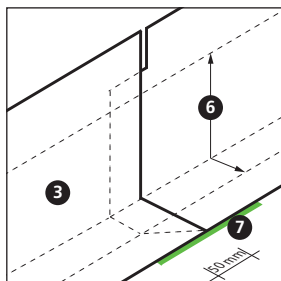
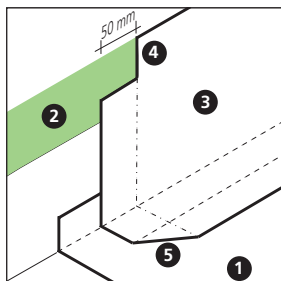
- Cover the joint area twice with 50 mm wide FDT adhesive tape.



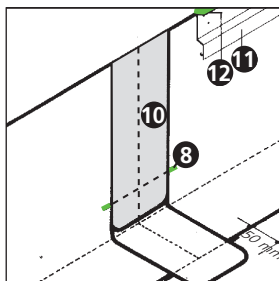
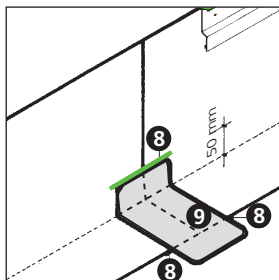
- Place a 150 mm wide Rhepanol cover tape over the centre of the joint. Clean the seam area, tear off the release paper and roll on.



- ① Roofing membrane Rhepanol fk
- ② Rhepanol contact adhesive 50, only for heights over 200 mm
- ③ Rhepanol fk flashing strip
- ④ Corner removed in the clamping area of the wall connection profile
- ⑤ Cut off corner (see also page 10)
50 mm cross joint overlap, bonded with Rhepanol contact adhesive 50
- ⑥ 200 mm unbonded valley area
- ⑦ Rhepanol paste



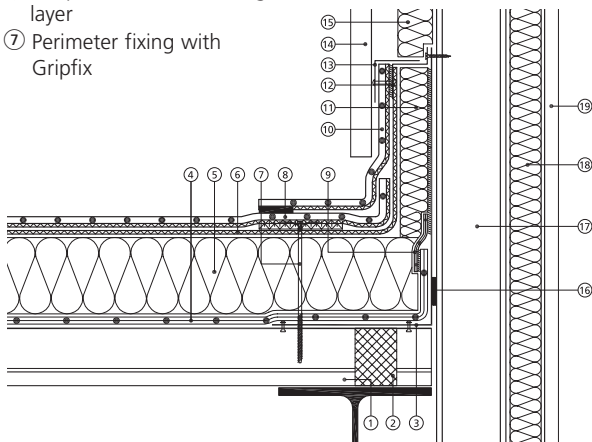
- ⑧ Rhepanol paste
- ⑨ Rhepanol cover tape, 100 mm wide, laid 50 mm up the vertical surface
- ⑩ Rhepanol cover tape, 100 mm wide, at vertical cross joint
- ⑪ Aluminium wall connection profile "Classic" or "Economy", fastener spacing max. 200 mm
- ⑫ FDT sealant A or S



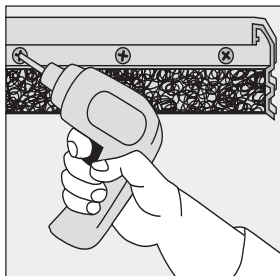
According to the Technical Rules for Roofs with Covering – Instructions for Flat Roofs, the flashing height for roof slopes up to 5° (8.8 %) should be at least 150 mm and for roof slopes over 5° (8.8 %) at least 100 mm higher than the upper edge of the bulk gravel, paving slabs etc.

- ① Profiled steel decking, corrosion protected
- ② Profiled packing strip
- ③ Steel angle
- ④ FDT vapour control layer fk
- ⑤ Thermal insulation EPS
- ⑥ Rhepanol fk fire retarding layer
- ⑦ Perimeter fixing with Gripfix

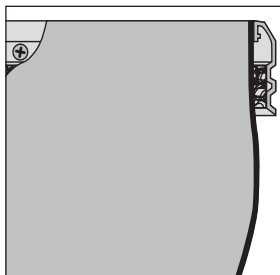
- ⑧ Roofing membrane Rhepanol fk, mechanically fastened
- ⑨ FDT adhesive tape
- ⑩ Rhepanol fk cover tape
- ⑪ Thermal insulation EPS
- ⑫ Z-profile
- ⑬ Clamping profile
- ⑭ Profiled metal wall cladding
- ⑮ Thermal insulation
- ⑯ Airtight pre-compressed tape
- ⑰ Steel construction
- ⑱ Thermal insulation
- ⑲ Profiled metal wall cladding



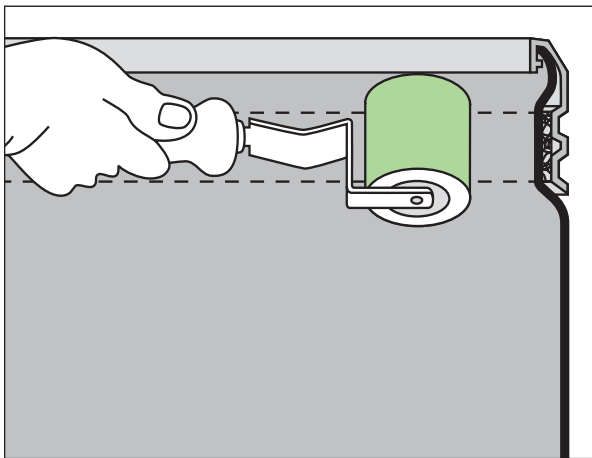
- Fasten profile with screws. Upper edge of the profile must be at least 100 or 150 mm above the upper edge of the roof covering (see page 38).



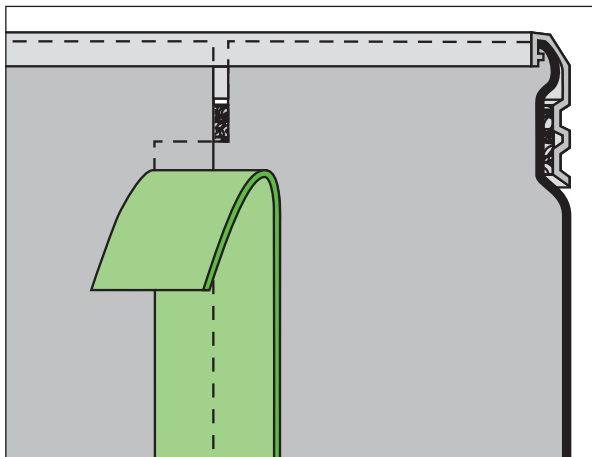
- Align Rhepanol fk with the upper edge and velcro-fix it.
- If necessary, cut the roofing membrane along the upper edge of the profile.



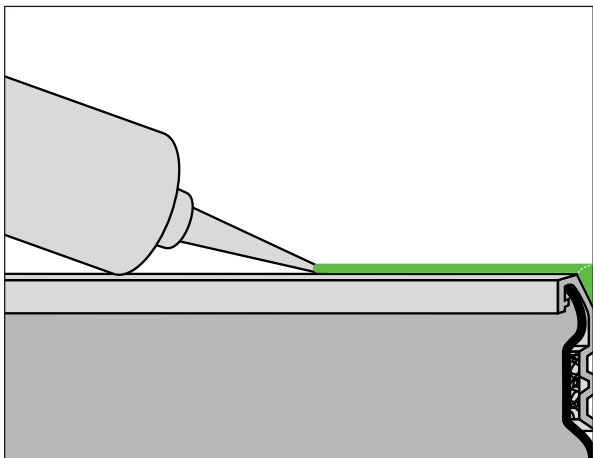
- Push the membrane edge into the aluminium wall connection profile Gripfix.
- Firmly roll on the velcro part of the profile.



- Forming the joint:
Cut out the lower roofing membrane from the top to the height of the Gripfix strip. Seal the joint with Rhepanol cover tape right under the profile edge.



- Seal the upper edge, preferably with FDT sealant A or S. At the profile joint, also seal the vertical joint.



If draining of roof areas is done with bracket-mounted gutters, for transition there must be a steel drip angle.

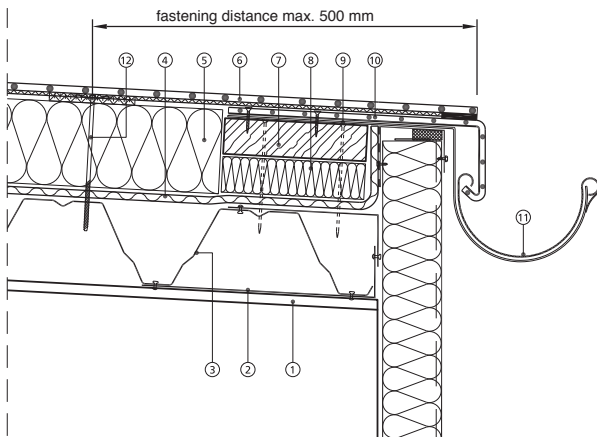
In order to fasten the steel drip angles made of Rhepanol coated metal sheet, edge boards or thermally insulated metal profiles can be used. They must be 10 mm lower than the existing thermal insulation layer and at the roof side must project at least 20 mm over the edge of the drip angle.

In the case of bonded fixing of the roof covering, a 100 mm wide area must be left unbonded. The wind load must be diverted by means of an adhesive tape at the steel drip angle.

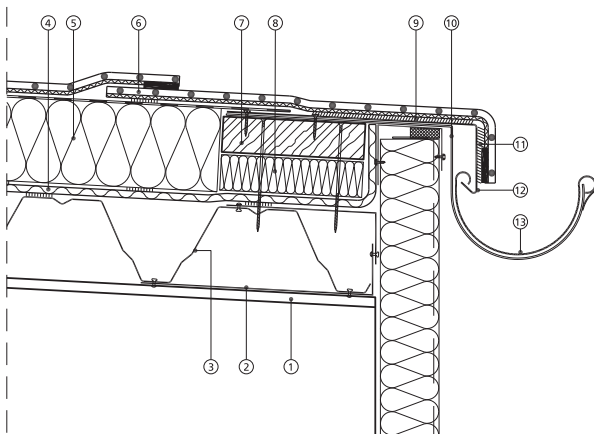
In the case of mechanical fastening with Gripfix system, the wind load is diverted by means of a Gripfix strip which is installed behind the steel drip angle.

Gutter brackets are to be mounted flush with the supporting construction or edge boards, otherwise the spaces must be filled.

- ① Supporting construction
- ② Metal angle
- ③ Profiled steel decking, corrosion protected
- ④ Vapour control layer
- ⑤ Thermal insulation layer according to specification
- ⑥ Rhepanol fk, mechanically fastened with Gripfix system
- ⑦ Treated timber profiles
- ⑧ Pressure-resistant thermal insulation
- ⑨ Bracket
- ⑩ Rhepanol coated metal sheet
- ⑪ Gutter
- ⑫ Perimeter fixing with Rhepanol Gripfix-strips



- ① Supporting construction
- ② Metal angle
- ③ Profiled steel decking, corrosion protected
- ④ Vapour control layer
- ⑤ Thermal insulation layer with bituminised felt facing bonded with FDT adhesive U
- ⑥ Roofing membrane Rhepanol fk bonded with FDT roofing membrane adhesive or Rhepanol adhesive 90
- ⑦ Treated timber profiles
- ⑧ Pressure-resistant thermal insulation
- ⑨ Rhepanol contact adhesive 50
- ⑩ Bracket
- ⑪ Bonding with Rhepanol contact adhesive 50, alternatively pre-coating with Rhepanol primer Precol
- ⑫ Metal drip
- ⑬ Gutter



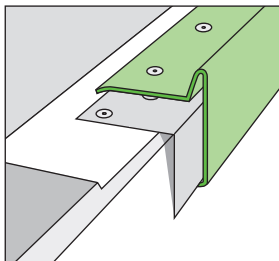
According to the Technical Rules for Roofs with Covering, Instructions for Flat Roofs, the height of the covering at roof edge trims for roof slopes up to 5° (8.8 %) should be at least 100 mm and for roof slopes over 5° (8.8 %) at least 50 mm higher than the upper edge of the bulk gravel, paving slabs etc.

The bend (outer vertical flange of the profiles or cappings) must overlap render finish, fair-faced brickwork, fair-faced concrete, curtain wall and similar at building heights up to 8 m by at least 50 mm, from 8 to 20 m by at least 80 mm and at building heights over 20 m by at least 100 mm.

The dripping edge must be at least 20 mm away from the lower components.

When using Rhepanol coated metal sheets as a roof edge trim or as a parapet capping, depending on the cover height and the building geometry, with every profile joint additional stiffeners or continuous stiffening profiles must be installed according to the tables (see pages 47 and 48).

- The 200 mm long and 1.2 mm thick stiffeners should be fixed each with two fasteners in the supporting construction, the also 1.2 mm thick stiffening profiles should be fixed staggered at a spacing of not more than 200 mm.



	Number of stiffeners per metre*)						
	Perimeter area:						
	Cover height in mm						
Building height ¹⁾ in windzone 1 and 2	80	110	130	150	170	190	210
≤ 8 m	0	0	1	1	1	2	3
≤ 20 m	0	1	2	2	3	3	D
≤ 100 m	1	2	2	3	D	D	D

*) in addition to the stiffeners below the profile joints

¹⁾ For buildings in windzone 3 and 4 the number of stiffeners per metre is to be defined depending on the project acc. to DIN EN 1991-1-4 (Eurocode 1).

D = continuous stiffening profiles

	Number of stiffeners per metre*)						
	Perimeter area:						
	Cover height in mm						
Building height ¹⁾ in windzone 1 and 2	80	110	130	150	170	190	210
≤ 8 m	0	0	1	2	2	3	D
≤ 20 m	1	2	2	D	D	D	D
≤ 100 m	1	3	D	D	D	D	D

*) in addition to the stiffeners below the profile joints

¹⁾ For buildings in windzone 3 and 4 the number of stiffeners per metre is to be defined depending on the project acc. to DIN EN 1991-1-4 (Eurocode 1).

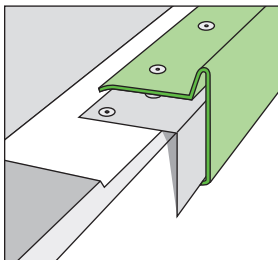
D = continuous stiffening profiles

■ Roof edge trims must be inclined towards the roof side.

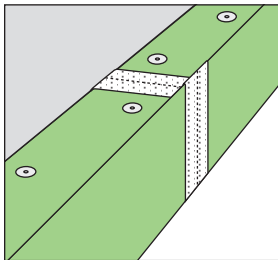
■ The bent and de-burred Rhepanol coated metal sheets are fastened in a staggered pattern at a spacing of 150 mm with suitable fasteners.

Rhepanol cover tape

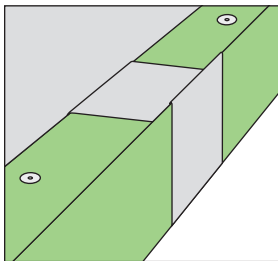
- Screw on the stiffening profile, hang up the roof edge trim and fasten in the substrate.



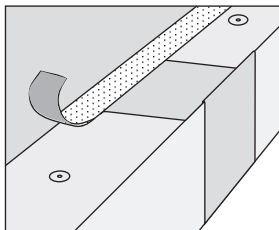
- Affix two FDT adhesive tapes 50 mm wide over the joint area.



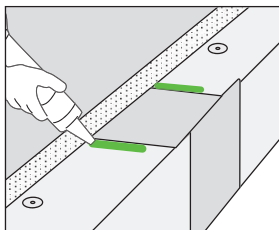
- Lay out a 150 mm wide Rhepanol cover tape (alternatively with Rhepanol h strips, see page 33) centered, clean the seam area (see page 11), peel off the release paper and roll on.



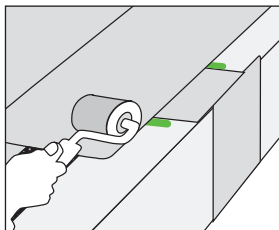
- Affix FDT adhesive tape to the edge of the sheet and the roof covering. If a Rhepanol connecting membrane (e. g. 250 mm wide Rhepanol fk with self-sealing edge on both sides) is used, you may leave out the FDT adhesive tape at the edge of the sheet.



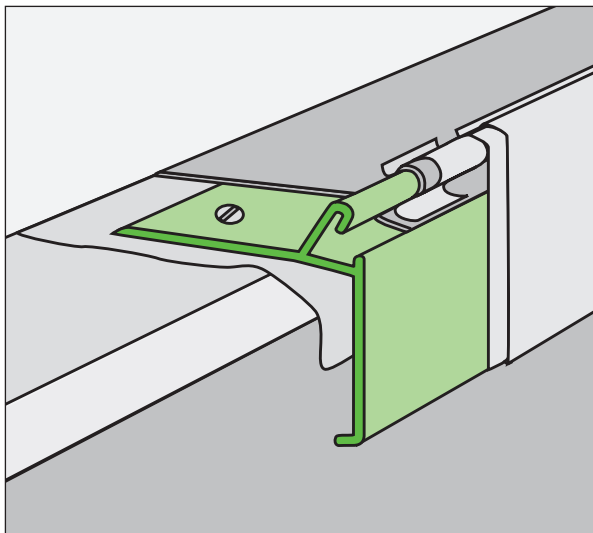
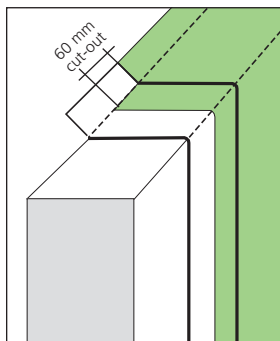
- Apply Rhepanol paste with min. 40 mm length at the seam edges.



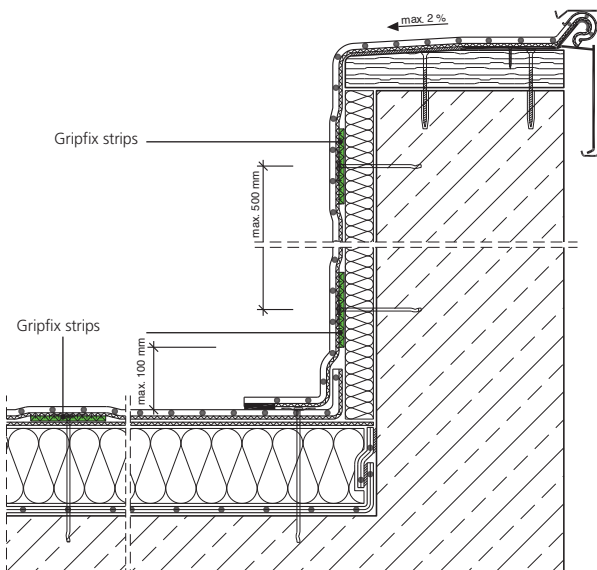
- Lay out a 150 mm wide Rhepanol cover tape, clean the seam area (see page 11), peel off the release paper and roll on. Head joints and joints of the Rhepanol coated metal sheet must be staggered by at least 200 mm.



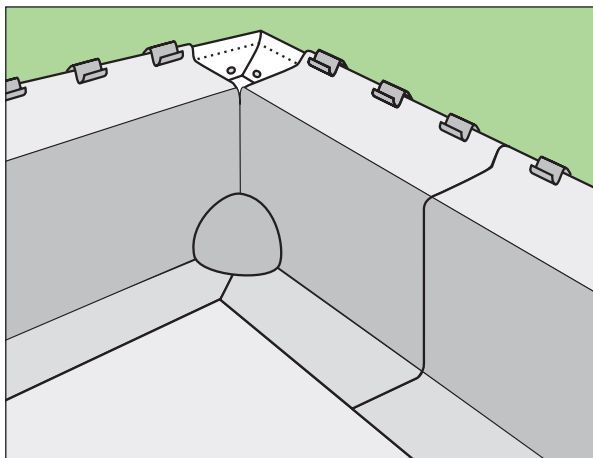
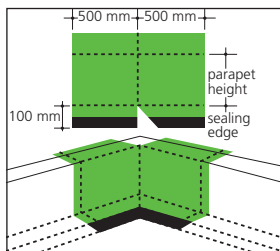
- Take the Rhepanol fk flashing strip over the mounting rail.
- Fix it with plastic clamps at a spacing of 150 mm and install the fascia board.
- Cut out the cross joint at the overlap and seal it (see page 41).



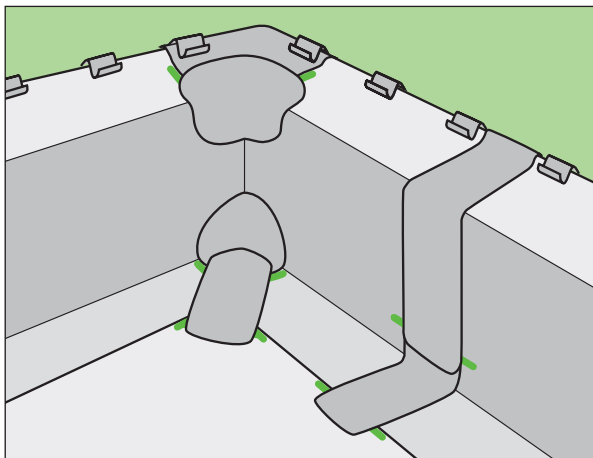
In case of roof edge trims e. g. with mineral fibre insulation, the flashing strip can also be fastened with Gripfix strips. Bonding the Gripfix strips is not permissible. Layout and max. spacing of the Gripfix strips see sketch.



- Cut a Rhepanol fk flashing strip to size and bond it with Rhepanol contact adhesive 50.
- Clean the seams (see page 11).
- Apply the self-sealing edge and attach an internal corner 90° (see page 99).

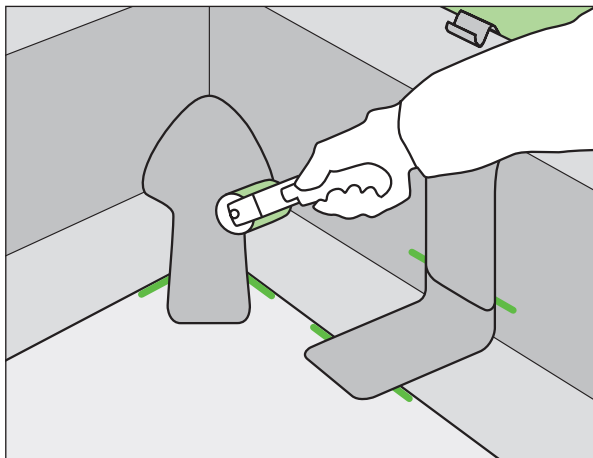


- Apply Rhepanol paste to cleaned membrane edges.
- Place a 100 mm wide Rhepanol cover tape over the centre of the joint and roll it on thoroughly.
- The top of the corner is formed with a cut-out of Rhepanol cover tape (remove release paper only in the seam area) and an external corner 90°.

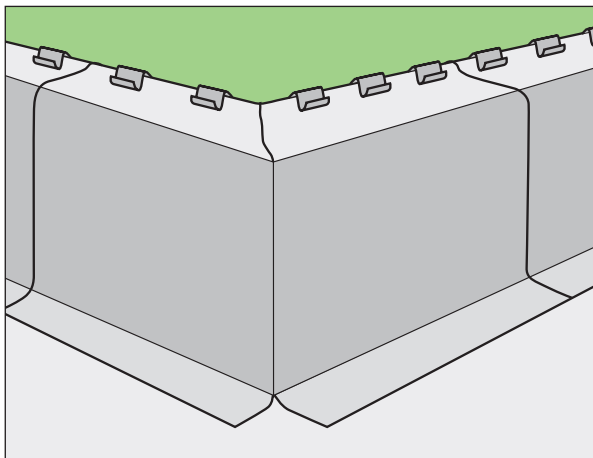
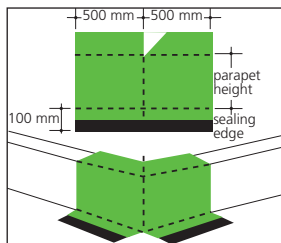


A simple alternative:

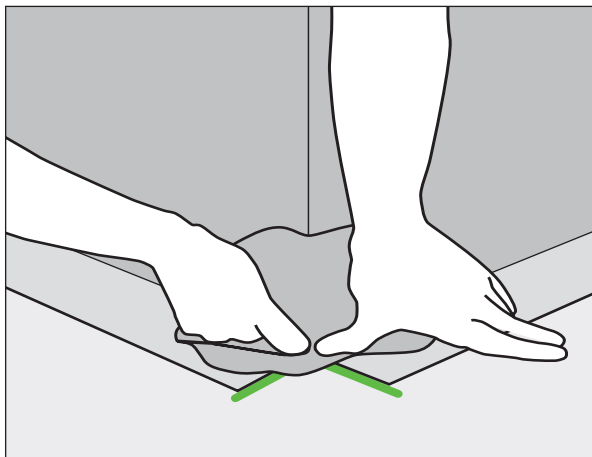
Instead of the internal corner 90° and cover tape, you can also use the internal corner 90° rapid, if the flashing strip projects not more than 150 mm onto the roof area.



- Cut a Rhepanol fk flashing strip to size and bond it with Rhepanol contact adhesive 50 to the upstand.
- Bond the membrane overlap and flash against roof edge trim.
- Clean the seams (see page 11).
- Seal the seams and roll on.



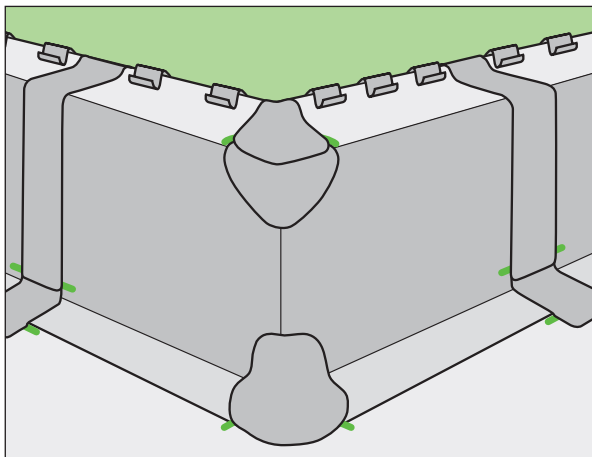
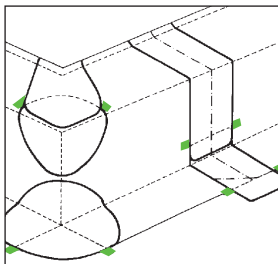
- Apply Rhepanol paste to cleaned membrane edges.
- Place the Rhepanol fk external corner 90° and roll on (see page 99).



Finished external corner:

Forming the top of the corner with Rhepanol cover tape and Rhepanol fk internal corner 90°.

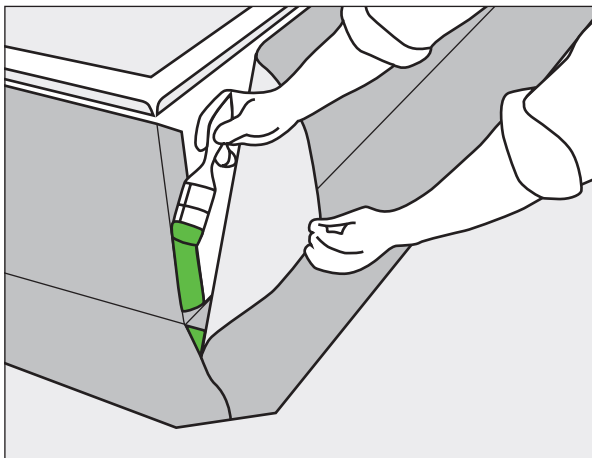
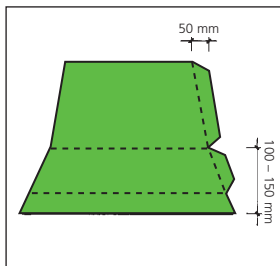
Instead of the Rhepanol fk internal corner 90° and Rhepanol cover tape, you can also use the Rhepanol fk internal corner 90° rapid.



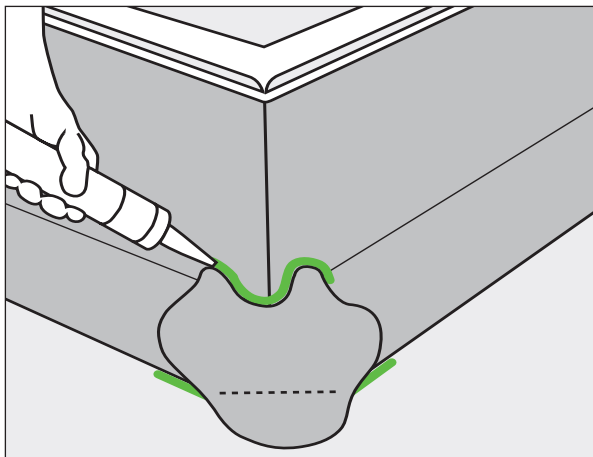
Sequence of operations

- 1.** Cut a Rhepanol fk flashing strip to size, overlap lower membrane by 50 mm around the corners of the rooflight upstand.

Apply the flashing strip not less than 100 mm and not more than 150 mm onto the roof area.

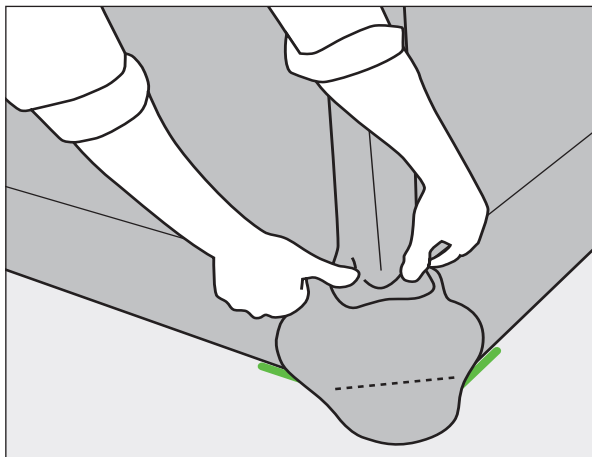
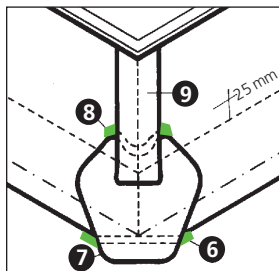


2. Bond the flashing strip to the upstand with Rhepanol contact adhesive 50.
3. Also bond the overlap at corners.
4. Clean the seam area (see page 11).
5. Apply the self-sealing edges.
6. Apply Rhepanol paste.
7. Place the Rhepanol fk universal rooflight corner over the centre of the joint and roll it on thoroughly (see page 99).
8. Apply Rhepanol paste.



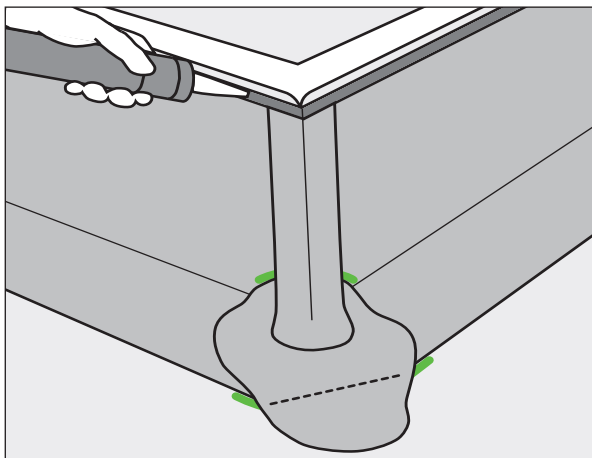
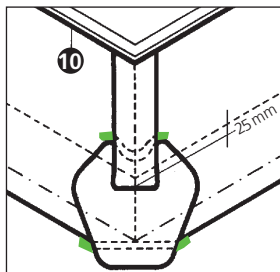
9. Cut the upper strip from 100 mm wide cover tape, place it over the centre of the joint and roll it on thoroughly.

Important: Press on the Rhepanol cover tape at the fillets from outside to the centre.

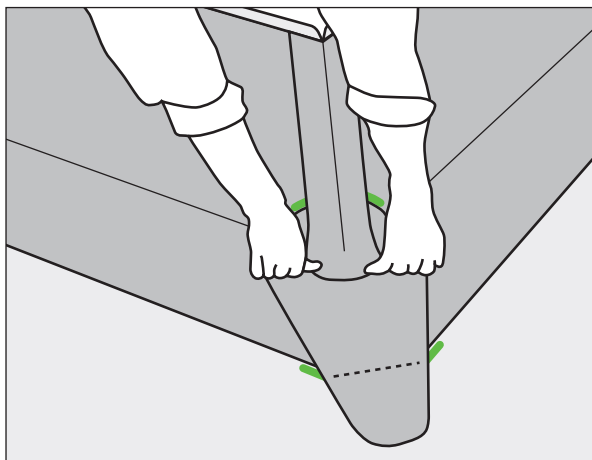
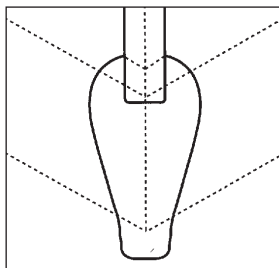


10. Seal the upper edge with FDT sealant S or Rhepanol paste.

Do not bring sealant into contact with acrylic glass!



- 11.** If the trim strip projects more than 150 to 250 mm onto the roof area, the longer rooflight corner Rhepanol fk universal rapid must be used.



FDT system parts for Rhepanol[®] fk with self-sealing edge system

At all prefabricated parts, the roofing membrane Rhepanol fk must be fixed with special Gripfix rings.

Built-in details must be fastened to the supporting deck with at least 3 fasteners.

For other built-in details, mechanical fixing of the field membrane is also necessary.

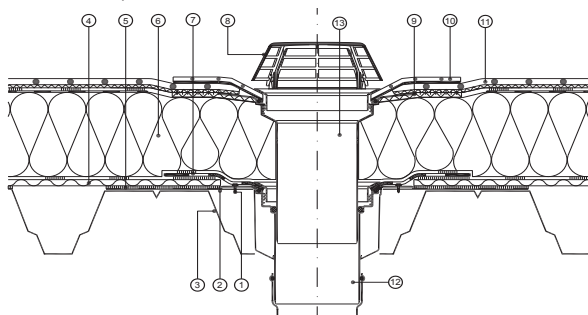
This can be done by either single fasteners, or with separately fastened Gripfix strips.

- Install FDT VarioGully or FDT VarioGully warm roof extension in the substrate or rather thermal insulation to avoid ponding water around the rainwater outlet.

- Fasten the FDT VarioGully to the supporting deck (4 fasteners/rainwater outlet vertical, 3 fasteners/ rainwater outlet angled).

- ① Fastening
(4 fasteners/FDT VarioGully)
- ② Metal stiffener
- ③ Profiled steel decking, corrosion protected

- Roof opening: Ø 200 mm (rainwater outlet angled, DN 125, 200x280 mm or rainwater outlet angled, DN 70/100, 200x350 mm).

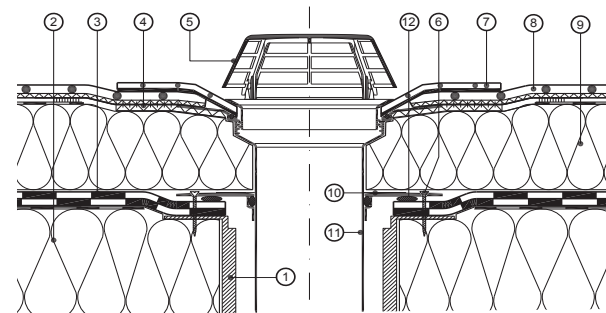


- ④ Vapour control layer
- ⑤ Cold bitumen pre-coating, as required
- ⑥ Thermal insulation layer, e. g. EPS, with bituminous felt backing
- ⑦ Vapour control collar
- ⑧ FDT gravel stop/leaf guard
- ⑨ Gripfix ring

- ⑩ Rheapanol collar with self-sealing edge system
- ⑪ Roofing membrane. Rheapanol fk, bonded with FDT roofing membrane adhesive
- ⑫ FDT VarioGully DN 125
- ⑬ FDT VarioGully warm roof extension

The VarioGully refurbishment can be used for old roof outlets up to DN 150, depending on the diameter of the run-in area of the old roof outlet (min. 137 mm and max. 210 mm).

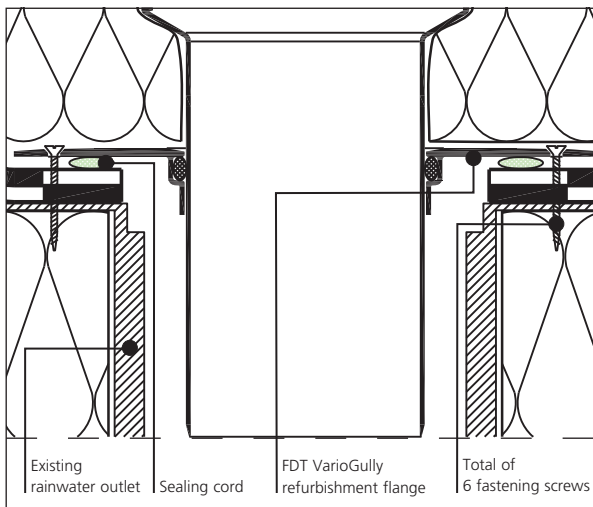
- ① Existing old roof rainwater outlet
- ② Existing thermal insulation
- ③ Old roof with bituminous sealing
- ④ Gripfix ring
- ⑤ FDT gravel stop/leaf guard
- ⑥ Fastening (6 fasteners)
- ⑦ Rhepanol fk collar with self-sealing edge system
- ⑧ Roofing membrane Rhepanol fk, bonded with FDT roofing membrane adhesive
- ⑨ New thermal insulation
- ⑩ FDT VarioGully refurbishment flange
- ⑪ FDT VarioGully warm roof extension
- ⑫ Sealing cord



Installation

- Clean the flange area of the old roof outlet.
- Apply the sealing cord in the fastening at the lower side of the flange.
- Place the FDT VarioGully refurbishment and fasten it with screws.
- Place the FDT VarioGully warm roof extension to cover additional thermal insulation.
- Flashing against the roofing membrane Rhepanol fk with Rhepanol fk collar with self-sealing edge system.

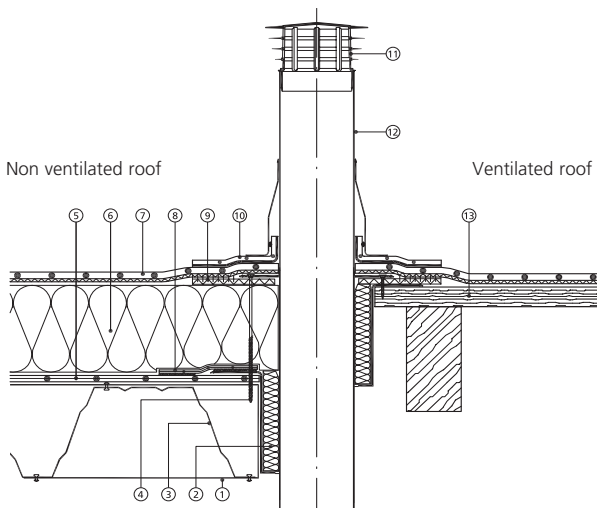
Installation detail



FDT flat roof vent pipe DN 100 with self-sealing edge system

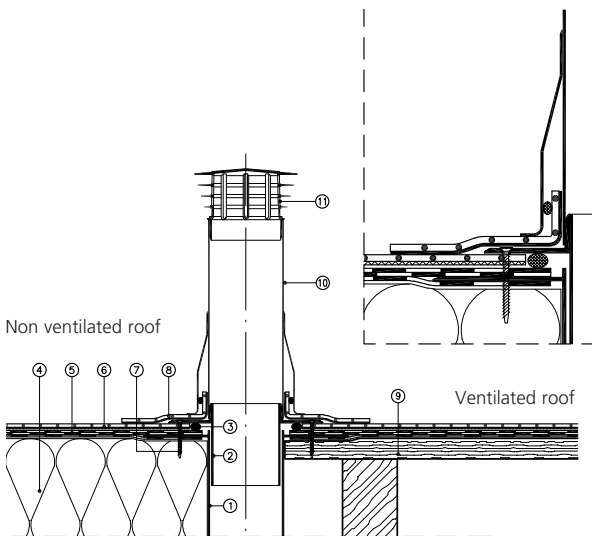
Roof penetration: Ø 190 mm

- ① Metal angle
- ② Penetration curb and insulation sleeve
- ③ Profiled steel decking, corrosion protected
- ④ Mechanical fastening
- ⑤ FDT vapour barrier fk
- ⑥ Thermal insulation according to specification
- ⑦ Roofing membrane Rhepanol fk, mechanically fastened with Gripfix system
- ⑧ FDT sealing tape for FDT vapour barrier fk
- ⑨ Gripfix ring
- ⑩ Rhepanol fk collar with self-sealing edge system
- ⑪ Vent pipe cowl, removable
- ⑫ FDT flat roof vent pipe DN 125/DN 100
- ⑬ Roof boarding



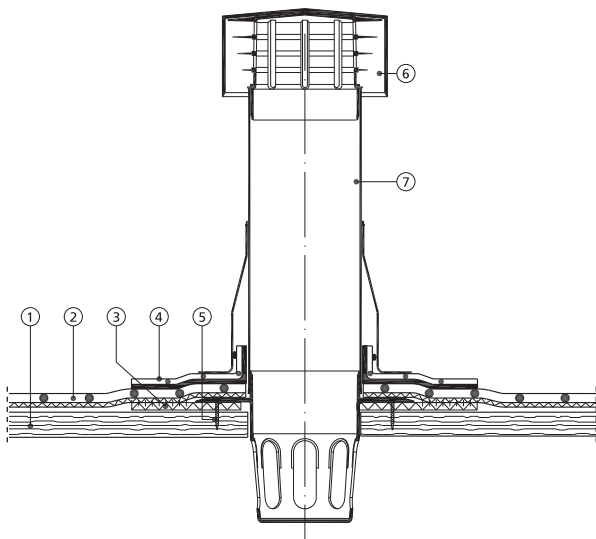
FDT refurbishment vent pipe for DN 100 with self-sealing edge system for flashing against existing vents

- ① Old vent pipe, cut flush at the old roof area
- ② Pipe socket at refurbishment vent pipe
- ③ FDT sealant S or Rhepanol paste
- ④ Thermal insulation
- ⑤ Old roof covering
- ⑥ Roofing membrane Rhepanol fk, mechanically fastened with Gripfix system
- ⑦ Mechanical fastening of the pipe socket
- ⑧ Rhepanol fk collar with self-sealing edge system
- ⑨ Roof boarding
- ⑩ FDT refurbishment vent pipe DN 100
- ⑪ Vent pipe cowl, removable

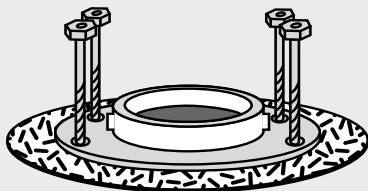


**FDT cold roof vent DN 125
with Rhepanol fk collar with
self-sealing edge system
and Gripfix ring.**

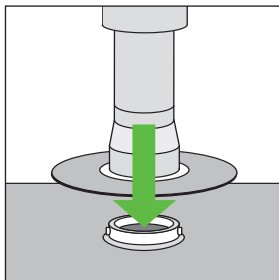
- ① Roof boarding
- ② Roofing membrane
- ③ Gripfix ring
- ④ Rhepanol fk collar with
self-sealing edge system
- ⑤ Fastening
- ⑥ FDT vent pipe cowl
- ⑦ FDT cold roof vent
DN 125



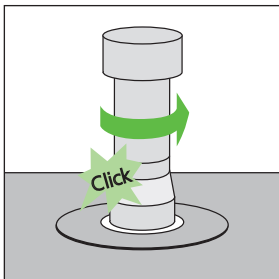
- Install flange including underlying Gripfix ring.
- Then apply the roofing membrane Rhepanol fk.



- Cut out the membrane (10 mm wider all around).
- Put on the FDT cold roof vent.



- Turn the FDT cold roof vent until it clicks into place.
- Flash the collar against the roofing membrane.
- Roll on – sealed!



Flashing against the roofing membrane

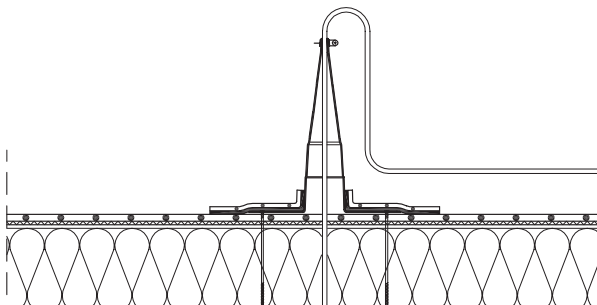
The FDT lightning conductor collar is directly flashed against the Rhepanol fk roofing membrane. In order to avoid shearing forces on the seam connection, the collar must be fixed with three countersunk screws.

Flashing against lightning protection wire, cable, pipes with 8 mm diameter

Seal the collar with the supplied jubilee clip by squeezing the squeeze point with pincers.

Flashings with wider passages up to max.**51 mm diameter**

For wider diameters simply cut off the FDT lightning conductor collar. The inner diameter at the cut point should be at least 2 mm narrower than the component to be passed through. For passing through, the end is heated up with a hot-air blower and stretched while putting it on. At the forming cylindrical shaft, carry out the flashing with a suitable stainless steel clamp.

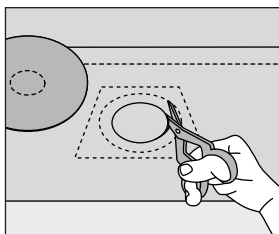
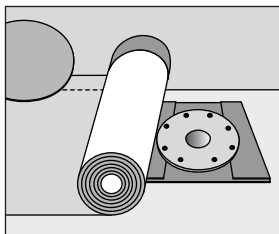
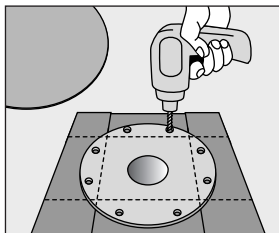


Put the **FDT RWE rainwater outlet** in place and screw it to the substrate, with 4 Gripfix strips placed under the flange by half.

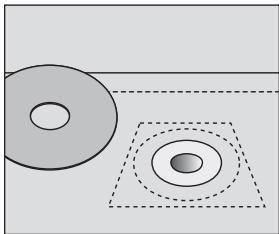
Alternatively, bond Rhepanol fk to the flange with Rhepanol contact adhesive 50.

Align and unroll the roofing membrane.

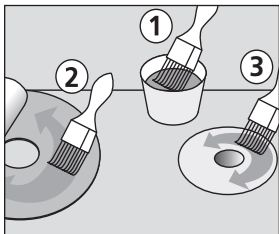
Cut out Rhepanol fk 100 mm wider than the outlet diameter.



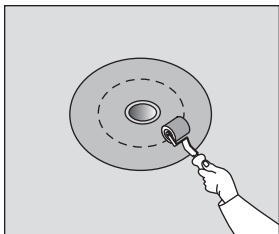
Cut to size the Rhepanol fk universal collar.



First apply Rhepanol solvent welding agent with a saturated brush ① to the self-sealing edge side of the Rhepanol fk universal collar ②, then immediately to the flange of the FDT rainwater outlet ③, using a brush.



After airing (until the flange has become dry/matt), place the collar and roll it on firmly.



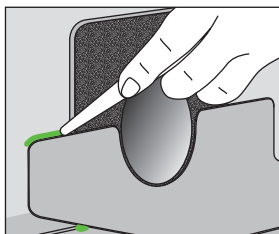
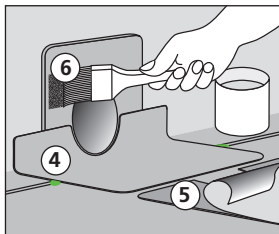
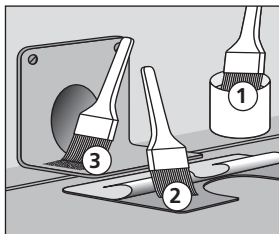
Flashing of **FDT water spouts and FDT emergency overflows to Rhepanol fk** is carried out the same way. Instead of the Rhepanol fk universal collar, Rhepanol cover tape may be used as well.

Install and fasten the **FDT Rhepanol water spout**.

Cut out the **lower collar**, allowing sufficient material to extend 50 mm up the upstand flashing. Wet a brush with solvent welding agent ①, then apply the solvent laden brush to the exposed self-sealing edge of the collar ② to create a solvent mixture, and immediately brush the flange of the FDT Rhepanol water spout with this mixture ③.

After airing (until the flange has become dry/matt), the seam edge of the flashing membrane must be sealed with Rhepanol paste in the area of the lower collar. Then put the lower collar into place, align it exactly ④ and thoroughly roll it on.

Attention: Stresses at the change of direction must be avoided!



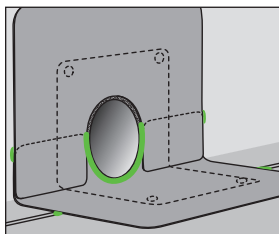
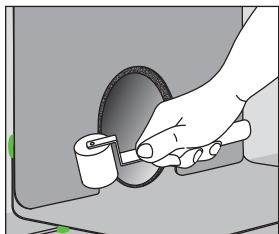
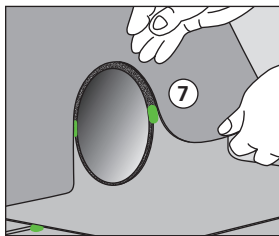
When the lower collar is in place, seal the seam edges with Rhepanol paste.

Cut the **upper collar** to size. Wet a brush with Rhepanol solvent agent, then first apply the agent to the self-sealing edge side of the upper collar ⑤, and immediately afterwards brush the upper part of the flange ⑥ of the FDT Rhepanol water spout. After airing (until the flange has become dry/matt), put the upper collar into place ⑦ and align it exactly.

Then roll on the upper collar thoroughly.

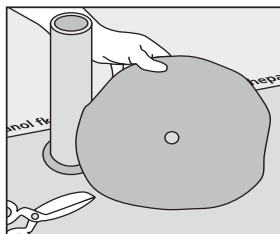
Attention: Do not squeeze out Rhepanol paste.

Finally, in the spout area, seal the seam edges with Rhepanol paste.

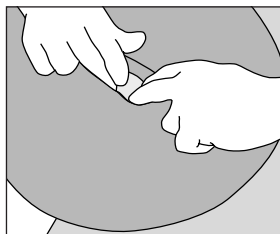


Flashing against pipe sockets

- Cut a Rhepanol f collar for the fastened pipe socket. Collar diameter = pipe diameter + 150 mm. Cut-out hole = about 1/4 of the pipe diameter.



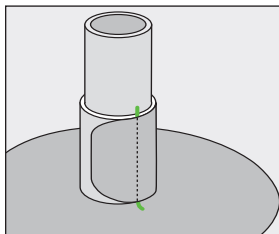
- Roughen the pipe and prime with two coats of Rhepanol primer Precol (see page 102).
- Form the collar to the pipe diameter.
- Pull the collar over, allow to settle for approx. 2 hours, then weld it on, with Rhepanol solvent-welding agent (see page 101).



Note:

For pipe diameter up to 200 mm, we recommend the separately available Rhepanol fk universal collar with self-sealing edge system.

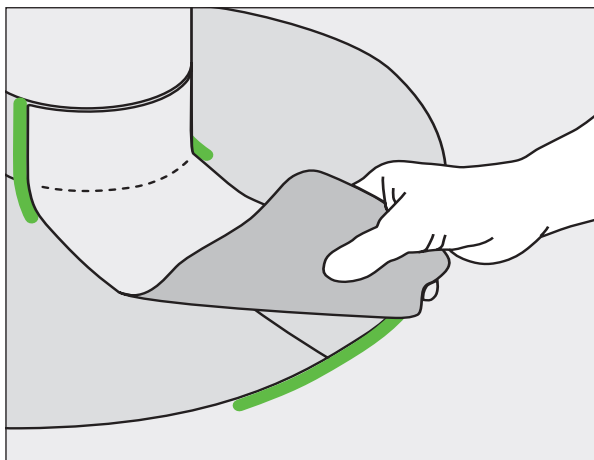
- Wrap the pipe socket with 150 mm¹⁾ wide Rhepanol cover tape.
- To achieve the requested seam overlap for smaller pipe diameter, apply additional cover tape extending into the roof area.
- Apply Rhepanol paste to the overlap edge of the cover tape.



¹⁾ On ballasted roofs, or when the cover tape is applied into the roof area, use a wider cover tape for the required flashing height according to the Regulations for Flat roofs.

Flashing against a continuous pipe

- Clean steel pipes down to the metal surface at the upper flashing area. Rigid PVC, polyester, etc. must be mechanically roughened.
- Prime with two coats of Rhepanol primer Precol (see page 102).
- Prepare the collar (see pages 78 and 79), slit it and weld it on with Rhepanol solvent welding agent.
- Apply Rhepanol paste at overlapping cleaned membrane edge und seal the seam with a cut-out of Rhepanol cover tape.

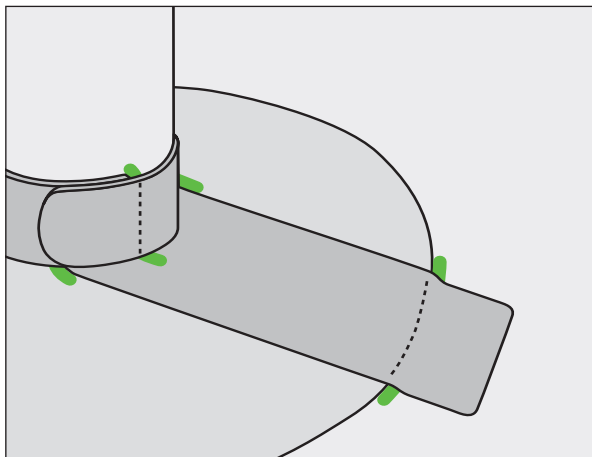


- Wrap the pipe with 150 mm¹⁾ wide cover tape.

- Apply Rhepanol paste to the overlap edge of the cover tape.

- At steel pipes, FDT sealant S should be applied at the upper edge of the flashing as an anticorrosive protection.

¹⁾ On ballasted roofs, use a wider cover tape for the required flashing height according to the Regulations for Flat Roofs.

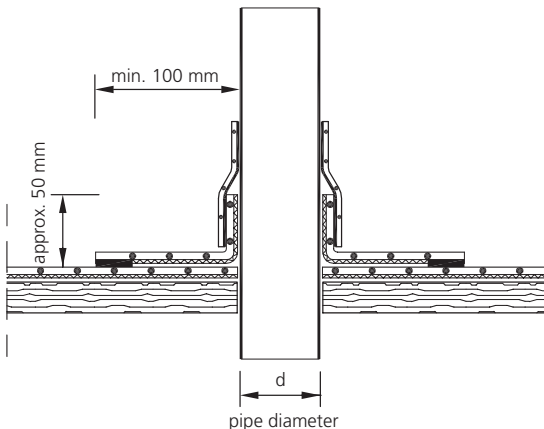


- Select Rhepanol fk membrane with double sided self-sealing edge according to the pipe diameter.
- Cover the two cross sides with cover tape.
- Apply cover tape (see page 81).

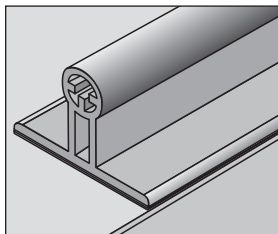
Pipe diameter d	100–150	160–320	330–450	460–850 mm
Membrane width	350	520	650	1050 mm

- Cutting the hole for forming the collar.

Pipe diameter d	100–150	160–500	510–850 mm
Membrane width	$\frac{1}{4} d$	$\frac{1}{4} d$	$\frac{1}{4} d$



- The Rhepanol fk standing seam profile must be installed only on dry and clean Rhepanol roofing membranes.
- Clean dirty surfaces (see page 11).



We recommend installing the Rhepanol fk standing seam profile lengthwise to the roofing membrane. It is thus possible to use the seam as a positioning aid.

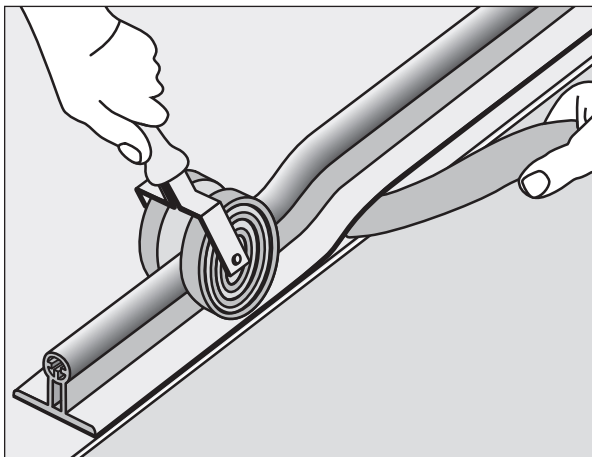
Place the profile on the seam, however not directly over the seam edge!

Place additional positioning markers as required.

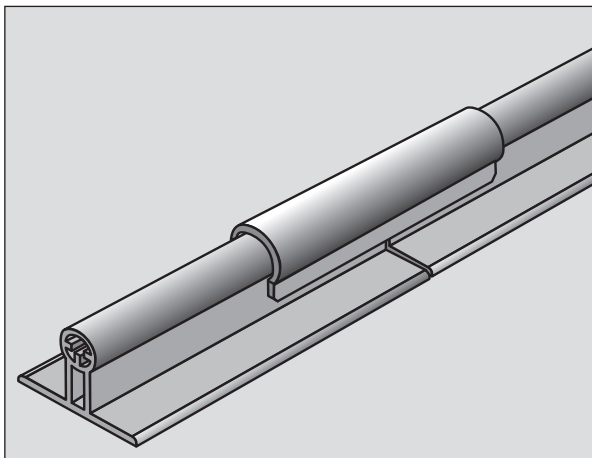
Do not place the Rhepanol fk standing seam profile in the rainwater run-off area or near rainwater outlets.

For safety reasons, do not install standing seam profiles at roof areas, which are regularly walked on.

- Peel off the release paper.
Press on the profile by hand and then roll it on thoroughly using the Rhepanol pressure roller for standing seam profiles.

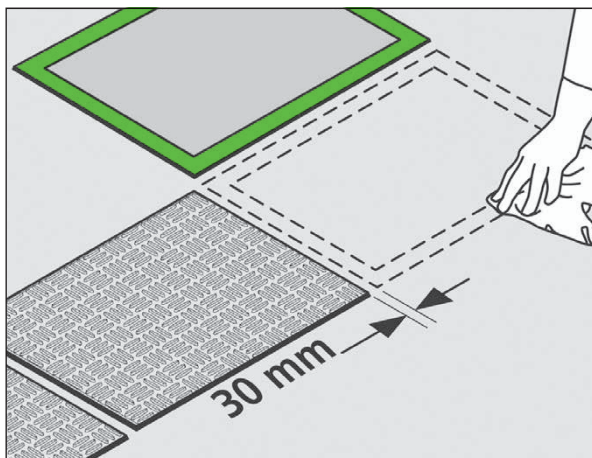


- Place a joint connector onto the next profile, closely butt the profiles.

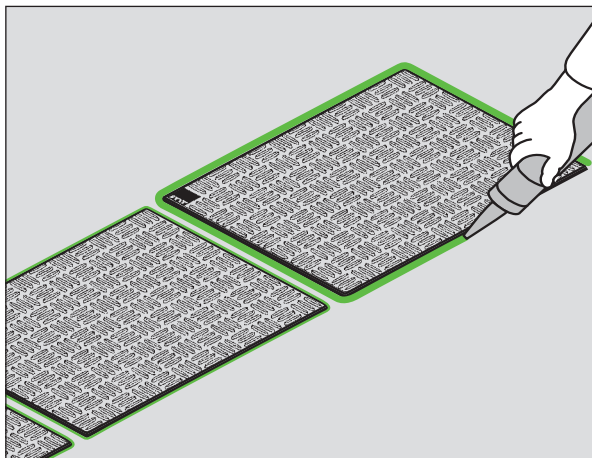


For maintenance walkways on Rhepanol fk.

- Clean the seam area
(see page 11).
- Seal T-joints with Rhepanol
paste (see page 15).
- Peel off the release paper
and roll on with the
Rhepanol universal roller.



- At cut-to-size tiles, Rhepanol paste is applied to substitute the self-sealing edge.
- The edges must be sealed with Rhepanol paste all around the paving tiles (consumption is approx. 120 g per tile).



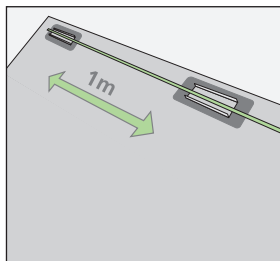
After laying the membrane, the Rhepanol holders for the FDT gravel stop profile are installed as follows:

- Mark the position of the holders. Please note that the fasteners of the holder must be attached to the substrate, e. g. gutter board.

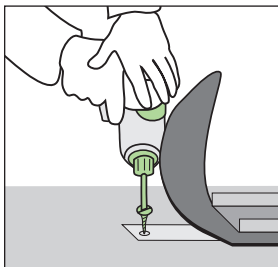
- The holders must be in alignment with each other. The holder spacing at roof slopes up to 5° must not exceed 1 m.

At slopes exceeding 5° application should be agreed with our experts according to the object.

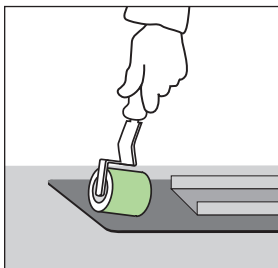
At joints of the gravel stop profiles the holders must be installed in a way that the profiles are equally positioned on the holder. If there is no joint at the last holder, the gravel stop profile may project over it by 250 mm.



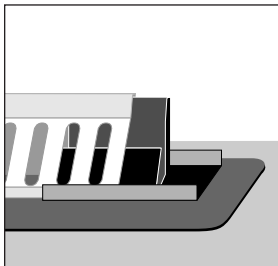
- Fasten the holders with two countersunk screws to the substrate (preferably to the gutter board).



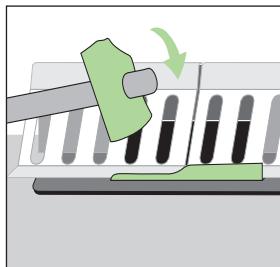
- Clean the seam area, remove the release paper from the cover tape, press on and connect it to the membrane by rolling it on.



- Insert the gravel stop profiles into the holders and push in clamp at the holder area. **The gravel stop profiles must not be butt jointed but left with a clearance of 2 mm at the joint!**

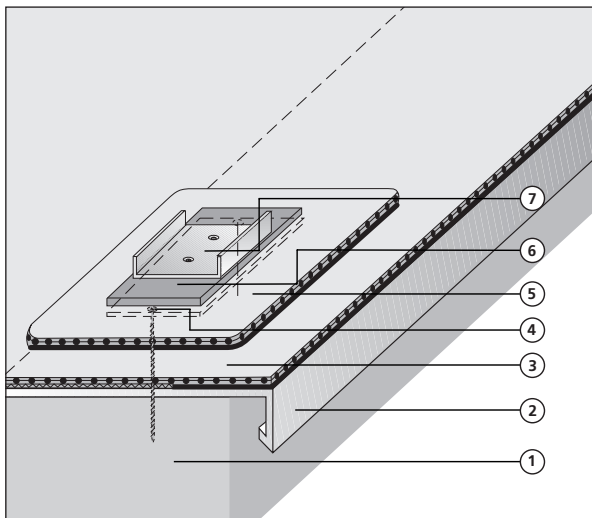


- Bend the holder flange with a hammer.

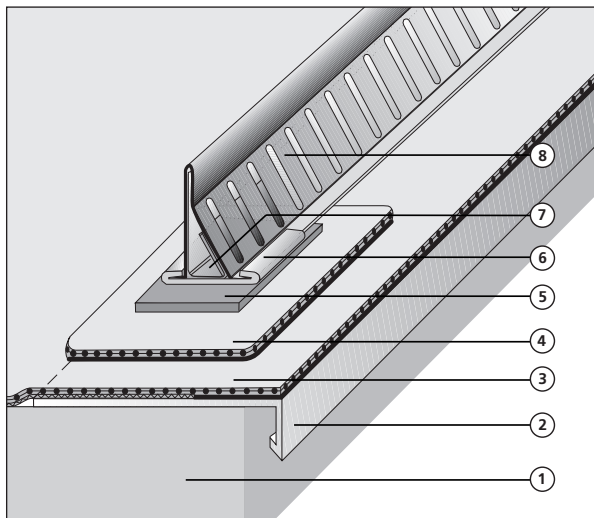


■ **Forming corners**

The preformed details for corner connections provided with the system allow for easy installation. Place the holders each at 150 mm from the corner. Simply push in the gravel stop profiles into the corners, then place them into the holders, align them and bend the holder flanges.



- ① Supporting construction
- ② Metal drip made of Rhepanol coated metal sheet
- ③ Roofing membrane Rhepanol fk
- ④ Holder fixing plate with screw connection
- ⑤ Rhepanol cover tape strip of the holder
- ⑥ Holder supporting strip
- ⑦ Rhepanol holder



- ① Supporting construction
- ② Metal drip made of Rhepanol coated metal sheet
- ③ Roofing membrane Rhepanol fk
- ④ Rhepanol cover tape strip of the holder
- ⑤ Holder supporting strip
- ⑥ Rhepanol holder
- ⑦ Rhepanol clamp
- ⑧ FDT gravel stop profile

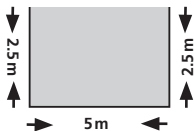
■ **Determination of the number of holders required for the FDT gravel stop profile:**

Always round up to an even amount of metres.

The rounded up sum of metres +1 is the required number of holders.

In case of discontinued sections every partial section is to be considered separately.

Example:



$$2.5\text{m} + 5\text{m} + 2.5\text{m} \\ = 10\text{m FDT gravel stop profile}$$

Number of

Rhepanol holders: 2.5 rounded 3 + 1 = 4

$$5 + 1 = 6$$

$$2.5 \text{ rounded } 3 + 1 = 4$$

Total = 14 holders

Product range

Forms of supply

Tools

Accessories

Roofing membrane Rhepanol fk, with synthetic fleece and one-sided self-sealing edge

Item No	Colour	Thickness ¹⁾ mm	Forms of supply Rolls Length x width (m)
10 10 430	grey	2.5	15 x 1.05
10 10 440	grey	2.5	10 x 1.05
10 10 650	grey	2.5	15 x 0.65
10 10 550	grey	2.5	15 x 0.52
10 10 540	grey	2.5	15 x 0.35
10 10 400	black	2.5	15 x 1.05
10 10 405	black	2.5	10 x 1.05
10 10 360	black	2.5	15 x 0.65
10 10 340	black	2.5	15 x 0.52
10 10 320	black	2.5	15 x 0.35

Roofing membrane Rhepanol fk, with synthetic fleece and double-sided self-sealing edge

10 10 470	grey	2.5	15 x 1.05
10 10 690	grey	2.5	15 x 0.65
10 10 590	grey	2.5	15 x 0.52
10 10 570	grey	2.5	15 x 0.35
10 10 560	grey	2.5	15 x 0.25
10 12 500	black	2.5	15 x 1.05
10 12 800	black	2.5	15 x 0.65
10 12 750	black	2.5	15 x 0.52
10 12 700	black	2.5	15 x 0.35
10 12 600	black	2.5	15 x 0.25

¹⁾ Thickness including 1 mm synthetic fleece.

Roofing membrane Rhepanol f for individual detail forming

Item No.	Colour	Thickness mm	Forms of supply Rolls Length x width (m)
10 00 500	grey	1.5	15 x 0.52
10 10 580	grey	1.5	15 x 1.05
10 00 202	black	1.0 ¹⁾	20 x 1.05
10 00 302	black	1.5	15 x 1.05
10 00 240	black	1.5	15 x 0.52
10 00 220	black	1.5	15 x 0.35
10 00 402	black	2.0	10 x 1.05

Note: Rolls must be stored horizontally in a dry place.

¹⁾ Rhepanol f 1.0 mm: non-waterproofing membrane,
use only for specific purposes.

Gripfix strips

For mechanical fastening with Gripfix system.

Item No.	Colour	Rolls Length x width (m)
10 37 000	black	60 x 0.12

Rhepanol cover tape

For cross joints and flashings.

10 05 500	grey	25 x 0.10
10 05 510	grey	25 x 0.15
10 05 520	grey	25 x 0.20
10 05 530	grey	25 x 0.35
10 05 540	grey	10 x 0.35
10 05 000	black	25 x 0.10
10 05 100	black	25 x 0.15
10 05 200	black	25 x 0.20
10 05 400	black	25 x 0.35
10 05 410	black	10 x 0.35

Rhepanol sealing tape

10 01 100	black	50 x 0.04
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Rhepanol coated metal sheet

For forming profiles for flashings and trims.

Item No.	Colour	Forms of supply
10 10 950	grey	30 units stack 2 x 1 m x 1.4 mm sheets
10 10 980	grey	30 units stack 3 x 1 m x 1.4 mm sheets
10 11 010	grey	30 m x 1 m x 1.4 mm coil

Rhepanol h-strips

For forming joints using Rhepanol coated metal sheets.

Item No.	Colour	Thickness mm	Forms of supply Rolls Length x width (m)
10 10 960	grey	1.5	15 x 0.15

FDT adhesive tape

For forming joints and edge protecting using Rhepanol coated metal sheets.

Item No.	Forms of supply
10 10 970	50 m x 38 mm

Prefabricated details with self-sealing edge system

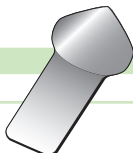
Rhepanol fk internal corner 90°

Item No.	Colour
10 14 480	grey
10 14 450	black



Rhepanol fk internal corner 90° rapid

10 35 940	grey
10 35 900	black



Rhepanol fk external corner 90°

10 14 580	grey
10 14 550	black



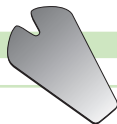
Rhepanol fk universal rooflight corner

10 35 510	grey
10 14 650	black



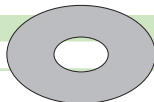
Rhepanol fk universal rooflight corner rapid

10 35 950	grey
10 35 920	black



Rhepanol fk collar

14 18 100	grey
14 18 110	black



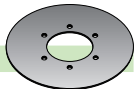
Rhepanol fk universal collar

14 18 840	grey
14 18 850	black



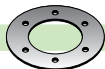
Rhepanol fk collar loose/fixed flange

Item No.	Colour	Forms of supply
14 18 900	grey, black	



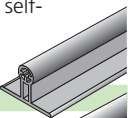
Rhepanol EPDM framing rings

14 18 910	black
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Rhepanol fk standing seam profile round with self-sealing edge system. For a visually attractive imitation of standing seams on Rhepanol fk.

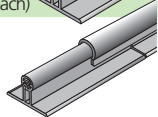
14 80 510	grey	100 m (= 50 units of 2 m each)
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Rhepanol fk joint connection

for additional joints on Rhepanol fk standing seam profiles round.

14 80 610	grey	10 pc per bag
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Rhepanol paving tiles

for maintenance walkways on Rhepanol fk.

14 50 050	anthracite/black ^{*)}	600 x 800 mm	90 pc per box
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Notes on self-sealing edge and prefabricated details:

The seam area must be clean and dry (see page 11).

Wipe the seam area with a clean and dry cloth. Cleaning with Rhepanol solvent-welding agent is necessary only in case of significant dirt or in moist and cool weather. If the weather is humid and cool, the seams should be cleaned with solvent-welding agent section by section and sealed immediately. Place prefabricated details in the middle at the corner point and, beginning from there, press them on first in the fillets by hand (i. e. working from the centre to the outside). The initial adhesiveness of the self-sealing edge allows for immediate detection of built-in stresses, as the prefabricated detail will slip out of the fillets. Necessary corrections can be carried out without any problem before rolling on. When the preformed detail is in place and stress-free, finally roll it on with the metal hand roller.

^{*)} colours may differ

Rhepanol paste

For sealing T-joints.

Item No.	Colour	Forms of supply
10 12 430	grey	300 ml cartridge
10 12 400	black	300 ml cartridge

Rhepanol solvent-welding agent

For cleaning the roofing membranes Rhepanol fk and for solvent welding of waterproofing membranes Rhepanol f.

Item No.	Forms of supply
10 11 450	1 l container = 0.78 kg
10 02 300	5 kg container

Cleaning: Moisten a cloth with Rhepanol solvent-welding agent and clean the lower membrane at the overlap (see page 11).

If the weather is humid and cool, the seams should be cleaned section by section and sealed immediately.

Consumption for cleaning: approx. 10 g/m seam.

Solvent welding: Apply Rhepanol solvent-welding agent under slight pressure with a brush between the two membranes to be welded. After the surface starts to dissolve, roll on thoroughly (at T-joints avoid contact of the Rhepanol paste with the solvent-welding agent, if possible). Immediately remove surplus solvent-welding agent. Consumption of solvent-welding agent: approx. 30 g/m seam.

Handling instruction for solvents and flammable fluids must be adhered to (see marking on the container)!

Solvent-welding agent must not come into contact with the skin or the eyes! Use an adequately oily skin protection lotion before and after welding. Do not clean your skin with solvent-welding agent. Do not inhale fumes. No smoking, no open fire, avoid sparks! Use solvent-welding agent only in properly ventilated areas. Do not discharge into sewerage network.

Only completely empty containers should be returned for recycling.

Rhepanol primer Precol

As wash primer for waterproof flashing of Rhepanol fk self-sealing edge against different materials such as concrete, brickwork, metal, rigid PVC.

Item No.	Colour	Forms of supply
10 02 200	black	5 kg container

Prime the substrate with two coats of Rhepanol primer Precol.

1st coat: 2 parts Precol + 1 part Rhepanol solvent-welding agent

2nd coat: undiluted Precol (1st coat must be dry).

Then roll on the self-sealing edge.

Consumption: approx. 300 g/m².

Note on Rhepanol primer Precol:

In case of extremely absorbing and uneven substrates, additional Rhepanol sealing tape must be used.

Rhepanol primer 1 S

Bonding agent for ferrous metals, concrete, render finish, timber and rigid PVC with Rhepanol contact adhesive 50.

Consumption: approx. 150-250 g/m².

15 00 900	blue	5 kg container
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Rhepanol primer 2 S

Bonding agent for non-ferrous metals and stainless steels with Rhepanol contact adhesive 50.

Consumption: approx. 150-250 g/m².

15 00 905	colourless	4,5 kg container
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Rhepanol contact adhesive 50

For bonding Rhepanol fk to wall and parapet surfaces such as concrete, render finish, brick work, derived timber products, polyester, rigid PVC, metals and bituminous roofing membranes.

Consumption: approx. 500 g/m².

Can be stored for at least 2 years.

Item No.	Colour	Forms of supply
17 30 030		4.5 kg container
17 30 020		12 kg container

Note: Always apply Rhepanol contact adhesive 50 on both the substrate and the fleece side of Rhepanol fk. Note the drying time! Check: During the finger check the adhesive must not produce threads.

Rhepanol h intensive cleaner 50

For diluting Rhepanol contact adhesive 50.

Can be stored for at least 4 years.

17 30 010	2 kg container
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Rhepanol adhesive 9

For bonding Rhepanol fk to chipboards, OSB and veneer boards on roof slopes up to 15°.

Consumption: approx. 300–400 g/m².

Can be stored for at least 1 year.

10 10 100	18 kg container
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Rhepanol roof paint

For a decorative coating of all Rhepanol membranes.

10 02 131	silver ¹⁾	5 l container
10 02 132	copper ¹⁾	5 l container
10 02 130	patinated copper ¹⁾	5 l container

Please coat Rhepanol roof paint twice on dry and clean Rhepanol roofing membrane. Consumption: approx. 0.25 l/m².

¹⁾ Special colours on request.

FDT sealant A

For flashings with wall connection profile.

Consumption: approx. 50 ml/m.

Can be stored for at least 1 year.

Item No.	Colour	Forms of supply
12 65 200	grey	300 ml cartridge

FDT sealant S

For flashings with wall connection profile and against

rooflights. Consumption: approx. 50 ml/m.

Can be stored for at least 1 year.

10 14 300	grey	300 ml cartridge
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FDT roofing membrane adhesive^{*)}

One-component adhesive based on PU.

For strip bonding of FDT fleece backed roofing membranes.

Can be stored for at least 1 year.

14 68 010	10 kg container
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Rhepanol adhesive 90^{*)}

For strip bonding of Rhepanol fk on bituminous membranes (without PE backing), derived timber products, lightweight concrete and concrete. Pre-coat as required.

Can be stored for at least 2 years.

10 09 650	9 kg container
10 09 660	12 kg container
10 09 670	25 kg container

Application instructions for FDT roofing membrane adhesive and Rhepanol adhesive 90:

Do not apply at temperatures below 5 °C, in wet ambient conditions or on wet substrates. The substrate must be solid, even, clean, dry and free of grease and oil. Lay roofing membranes Rhepanol fk onto the fresh adhesive using the rolling or folding method. Adjust the application time of the adhesive to the "open time", which is up to 20 minutes depending on the weather conditions. **Avoid excessive application of adhesive!** For further application instructions see adhesive container.

^{*)} Consumption see page 106

FDT adhesive U

Liquid one-component polyurethane adhesive for striped bonding of, among others, rigid polystyrene foam and bituminous vapour control sheets (**without PE backing or talcum coating**).

Can be stored for at least 1 year.

Item No.

Forms of supply

10 09 500

6.5 kg container

Application instructions: Do not apply at temperatures below 5 °C, in wet ambient conditions or on wet substrates.

The substrate must be solid, even, clean, dry and free of grease and oil. With high summer temperatures (approx. 25 °C and above) and low air humidity, it is recommended to slightly moisten the substrate after applying the adhesive to ensure a sufficient degree of moisture for foaming.

Roll or fold the bituminous membranes or insulating materials onto the fresh adhesive. If necessary, weigh down raised ends. Adjust the application time of the adhesive to the "open time", which is up to 15 minutes depending on the weather conditions.

Consumption of

FDT adhesive U for thermal insulation¹⁾

Building height ²⁾	Inner area DIN EN 1991-1-4	Perimeter and corner areas DIN EN 1991-1-4	Min. amount of adhesive stripes ^{3)/m}
0 to 8 m	160 g/m ²	220 g/m ²	8
over 8 m to 20 m	180 g/m ²	250 g/m ²	8

¹⁾ For mineral fibre insulation materials, adhesive consumption is to be defined depending on the object.

²⁾ Not for tower-style, detached buildings. Not for exposed positions.

³⁾ With profiled steel decking, two adhesive stripes per corrugation.

Consumption of FDT roofing membrane adhesive

Building height ¹⁾ in windzone 1 and 2	Inner area DIN EN 1991-1-4	Perimeter and corner areas DIN EN 1991-1-4	Min. amount of adhesives stripes/m
0 to 8 m ²⁾	150 g/m ²	200 g/m ²	8
over 8 m to 20 m	180 g/m ²	250 g/m ²	8

Note: For mineral fibre insulation materials, adhesive consumption acc. to DIN EN 1991-1-4 is to be defined depending on the project.

Consumption of Rhepanol adhesive 90

Building height ¹⁾ in windzone 1 and 2	Inner area DIN EN 1991-1-4	Perimeter and corner areas DIN EN 1991-1-4	Min. amount of adhesives stripes/m
0 to 8 m ²⁾	160 g/m ²	240 g/m ²	8
over 8 m to 20 m	200 g/m ²	280 g/m ²	8

Note: For mineral fibre insulation materials, adhesive consumption acc. to DIN EN 1991-1-4 is to be defined depending on the project.

Consumption of FDT roofing membrane adhesive for bonding Rhepanol fk on polystyrole with fire protection layer

Building height ¹⁾ in windzone 1 and 2	Inner area DIN EN 1991-1-4	Perimeter and corner areas DIN EN 1991-1-4	Min. amount of adhesives stripes/m
0 to 8 m ²⁾	165 g/m ²	200 g/m ²	10
over 8 m to 20 m	200 g/m ²	273 g/m ²	10 resp. 16

Note: For mineral fibre insulation materials, adhesive consumption acc. to DIN EN 1991-1-4 is to be defined depending on the project.

¹⁾ For building heights over 20 m and buildings in windzone 3 and 4 the adhesive consumption acc. to DIN EN 1991-1-4 is to be defined depending on the project.

²⁾ With consumption of 160 g/m² the dispensing adhesive application should be about 8 mm wide.

FDT application trolley universal

For Rhepanol adhesive 90 in completely drainable
25 kg container.

Application width: 1 m.

Item No.

Forms of supply

10 16 600

1 unit

FDT adapter for application trolley

Also suitable for FDT adhesive U in 6.5 kg container
and Rhepanol adhesive 90 in 9 kg container.

10 16 610

1 unit

FDT application trolley 1 m

For Rhepanol adhesive 90 in 9 kg container
and FDT roofing membrane adhesive in 10 kg container.
Application width: 1 m.

10 16 400

1 unit

FDT discharging funnel

Item No.	Forms of supply
10 16 620	1 unit

Rhepanol universal roller (25 kg)

10 10 600	1 unit
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FDT metal hand roller

10 02 700	1 unit
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FDT metal hand roller small

15 01 100	1 unit
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FDT Teflon roller

17 50 000	1 unit
-----------	--------

Rhepanol hand roller for standing seam profile

10 10 940	1 unit
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FDT felt roller

10 12 000	1 unit
-----------	--------

FDT handheld pistol

10 12 950	1 unit
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FDT scissors 250 mm

10 03 500	1 unit
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FDT welding brush 50 mm

10 10 000	1 unit
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FDT carrying aid

14 70 090	1 unit
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Rhepanol fk fire retardant layerEspecially flame retardant glass-grid fabric 175 g/m².

Item No.	Colour	Thickness mm	Forms of supply Rolls Length x width (m)
10 10 920	white		100 x 2.00

FDT protection layer

Made of PIB with polyester fleece backing as a highly perforation-resistant protection layer, with fleece free edge.

17 09 000	black	1.8 ¹⁾	20 x 2.05
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FDT synthetic fleece 300 g/m²Highly tear-resistant and thermally bound, drill resistant, alkali-resistant²⁾.

12 60 000	white		50 x 2.25
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FDT synthetic fleece 180 g/m²

Highly tear-resistant and thermally bound, drill resistant.

12 60 200	white		100 x 2.25
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FDT vapour control layer fkPolyethylene foil with $s_d \geq 120$ m.

10 10 900		0.4	25 x 4.00
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FDT vapour control layer alu-gv-skAluminium foil with polyester fabric reinforcement and adhesive coating; $s_d > 1.500$ m (practically vapour-proof)

12 90 670		0.25	100 x 1.50
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FDT connection tape

Special adhesive agent on carrier foil.

10 11 000	black		12 x 0.08
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FDT seam tape

Butyl adhesive agent fibre-reinforced.

10 11 100	grey		25 x 0.015
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¹⁾ Thickness including synthetic fleece. ²⁾ Other qualities on request.

FDT VarioGully roof outlet programme

Item No.	Application	Dimension/colour
14 30 010	vertical	DN 125/DN 100
14 30 020	vertical, heatable*)	DN 125/DN 100
14 30 030	vertical	DN 150 (OD 160)
14 30 040	vertical, heatable*)	DN 150 (OD 160)
14 30 060	angled	DN 125
14 30 070	angled, heatable*)	DN 125
14 30 080	angled	DN 70/DN 100
14 30 090	angled heatable*)	DN 70/DN 100
14 30 510	FDT VarioGully refurbishment flange	

FDT VarioGully warm roof attachment

14 30 210	for insulation thicknesses	from 50 mm to 200 mm
14 30 220	for insulation thicknesses	from 50 mm to 400 mm
14 30 230	for insulation thicknesses > 400 mm	tailor made production ¹⁾
14 17 100	FDT reducer	DN 125/70 excentric black
14 17 200	FDT lift ring	
14 17 300	FDT terrace grating with lift ring	
14 30 820	FDT emergency overflow socket	20 – 50 mm storage level
14 30 830	FDT emergency overflow socket	20 – 110 mm storage level

¹⁾ Indication of thickness of thermal insulation necessary when ordering.

*) Note on heating:

The splash-proof installed – not foamed-in – heater unit is double protected by the two integrated safety systems (heat monitoring relay and fuse).

The installation of the heating system must be carried out by a professional electrician, using a safety transformer 220/24 V.

Control of the heating system is carried out by the client.

The power of the heating system is 10 W. In the area of heatable outlets only non-combustible insulation materials must be used.



FDT screwing aid for VarioGully

Tool for simple and reliable installation of the screw rings for the FDT VarioGully.

Item No.

14 18 010

FDT rainwater outlet (RWE)

Item No.	For flashing against	Outer Ø (mm)	For inner pipe Ø (mm)	Application
14 20 000	Rhepanol fk	50		for bushing DN 50
14 20 010	Rhepanol fk	56		for down pipe Ø 60
14 20 020	Rhepanol fk	63	70	for down pipe Ø 80
14 20 030	Rhepanol fk	75		for bushing DN 70
14 20 040	Rhepanol fk	95	100	FDT lip seal (see below)
14 20 050	Rhepanol fk	110	125	for bushing DN 100
14 20 060	Rhepanol fk	125		for bushing DN 125
14 20 070	Rhepanol fk	140		
14 20 080	Rhepanol fk	160		for bushing DN 150

FDT leaf guard

The leaf guard is suitable for all FDT rainwater outlets (RWE) and can be cut to size to fit the corresponding diameter. Also suitable for all water spouts when cut to size.

14 22 000

universal

FDT lip seal

The FDT lip seals are used for safe installation of FDT rain-water outlets preventing backflow directly into the downpipe or old rainwater outlets.

14 22 010	for RWE	95	DN 100
14 22 020	for RWE	95	DN 125
14 22 030	for RWE	125	DN 150
14 22 040	for RWE	160	DN 200

FDT water spout

Item No.	For flashing	OuterØ against	Fall (mm)	Pipe length (mm)
14 20 500	Rhepanol water spout 50	50	5°	480
14 20 510	Rhepanol water spout 75	75	5°	480
14 20 520	Rhepanol water spout 110	110	5°	480

FDT weir overflow

14 20 840	Rhepanol weir overflow 75	75	5°	500
14 20 810	Rhepanol weir overflow 110	110	5°	500
14 20 860	Rhepanol weir overflow 200x100	210x110	2°	400
14 20 870	Rhepanol weir overflow 300x100	310x110	2°	400
14 20 880	Rhepanol weir overflow 450x100	460x110	2°	400
14 20 820	Rhepanol weir overflow 600x100	610x110	2°	400
14 20 890	Rhepanol weir overflow 800x100	810x110	2°	400
14 20 910	Rhepanol weir overflow 1000x100	1010x110	2°	400
14 20 830	Rhepanol weir overflow		2°	

„tailor made“¹⁾as per demand ²⁾¹⁾ also available as water spout²⁾ please ask for order form**FDT flat roof vent pipe DN 125/DN 100**

Made of rigid PVC with increased impact strength. With removable cap and bearing ring. Ready for installation with integrated collar with self-sealing edge system.

Item No.	For flashing against	Colour	For insulation material thickness up to (mm)
14 03 000	Rhepanol fk	grey	200
14 03 010	Rhepanol fk	black	200
14 03 080	Rhepanol fk	grey	400
14 03 090	Rhepanol fk	black	400

FDT refurbishment vent pipe DN 100

Made of rigid PVC with increased impact strength. With removable cap and ready-to-use integrated collar with self-sealing edge system. For flashing against vents in the case of roof refurbishment with Rhepanol fk.

Item No.	For flashing against	Colour
14 03 590	Rhepanol fk	grey
14 03 600	Rhepanol fk	black

FDT cold roof vent DN 125

Made of rigid PVC with increased impact strength. Vent cross section of 114 cm². Weather cap can be removed for maintenance. Ready for installation with integrated collar with self-sealing edge system.

14 10 250	Rhepanol fk	grey
14 10 260	Rhepanol fk	black

FDT hose connection

Made of polypropylene. Nominal width - DN 100. Flexible flashing against the vent pipe. Bellows length from 200 to 500 mm.

14 13 300	for FDT vent pipe DN 125/DN 100
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FDT vent pipe cowl DN 125

Made of rigid PVC with increased impact strength. In combination with FDT vent pipe/refurbishment vent pipe, for rain-proof flashing in case of room ventilation.

14 12 500	for vent pipe DN 125
14 12 629	for FDT refurbishment vent pipe DN 100

Lightning conductor sleeve Rhepanol

With self-sealing edge system and collar. For flashing against lightning protectors and for penetrations up to Ø 51 mm or as water spout and emergency outlet with connection to DN 50. Height: 250 mm, body colour: black

Item No.	Colour
14 40 030	grey
14 40 010	black

FDT universal collar

For flashing the roofing membrane against penetrations from 14 mm up to 48 mm Ø. Flange diameter: 200 mm

14 60 100	grey
14 60 110	black

FDT support covering

With Rhepanol collar. For flashing against penetrations from 14 mm to 50 mm. With stainless steel clamp for safety holders with Ø 14 - 16 mm. Total height: 150 mm, body colour: grey

14 60 000	grey
14 60 010	black

FDT wall connection profiles/roof edge trims

Item No.	Description	Length
14 09 930	FDT alu wall connection profile Economy	3 m
14 09 900	FDT alu wall connection profile Classic	4 m
14 09 920	Rhepanol alu wall connection profile Gripfix	4 m
14 11 500	FDT alu roof edge trim 110 metallic silver	4 m
14 12 200	FDT corner 110 metallic silver	
14 12 100	FDT joint connector 110 metallic silver	
14 11 501	FDT alu roof edge trim 175 metallic silver	4 m
14 12 201	FDT corner 175 metallic silver	
14 12 101	FDT joint connector 175 metallic silver	
14 12 000	FDT plastic clamps (additional/replacement) black	

Package of FDT gravel stop profile

Stainless steel gravel stop profile for roof edge trimming of gravelled and terraced roofs.

Item No.

14 40 100	60 mm high	10 units at 2 m each incl. 21 FDT holders and clamp
14 40 200	100 mm high	10 units at 2 m each incl. 21 FDT holders and clamp

Supplementary package of FDT gravel stop profiles as required

Item No.		Colour	Height/mm
14 40 160	FDT holders and clamp	grey/black	60
14 40 260	FDT holders and clamp	grey/black	100
14 40 140	FDT gravel stop 2 m	silver	60
14 40 240	FDT gravel stop 2 m	silver	100
14 40 120	FDT internal corner for gravel stop profile silver*)		60
14 40 220	FDT internal corner for gravel stop profile silver*)		100
14 40 130	FDT external corner for gravel stop profile silver*)		60
14 40 230	FDT external corner for gravel stop profile silver*)		100

*) silver – stainless steel

Top performance of a roofing membrane is always a question of professional application!

In order to ensure this, we offer special practical training, supervised by our experienced Technical Department staff.

Rhepanol and Rhenofol training for apprentices, journeymen and foremen provide knowledge for the installation of synthetic roof sealing membranes. Advanced Rhepanol courses for foremen and masters of the roofing craft are designed to provide wider and more comprehensive knowledge for the installation of synthetic roof sealing membranes.

Please contact
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FDT– commitment to synthetic roofing membrane recycling for the sake of environment.

Together with ESWA (European Single Ply Waterproofing Association), the European Organisation of Synthetic Roofing Membrane Manufacturers, we have installed a recycling solution for old PVC roofing membranes within Europe, based on a unique German recycling solution, where we played an important role during the development. ESWA today will provide innovative recycling possibilities, regardless of the manufacturers for different synthetic roofing membranes. For the return of materials the following procedure has to be considered:

- After ordering, you will receive from Interseroh Entsorgungsleistungen GmbH (recycling provider) big bags with a capacity of 300 to 400 square metres and a load capacity of up to

1.000 kg or for big job sites containers.

- It has to be stated whether the roof membrane consists of PVC-P, EVA-PVC, PE-C, ECB, TPO or PIB.
- Even fleece backed and bonded old roof membranes made of these materials will be accepted.
- They have to be declared separately.
- The roof membranes have to be clean swept.
- The area has to be cut into one metre wide membranes and rolled.
Remark: roll up the membranes tight to reduce the transporting volume.

Service upon request

For questions and remarks our Customer Service is available for you
Phone: + 49 621-8504-372
Fax: + 49 621-8504-378
E-Mail: export@fdt.de

FDT legal notice

We refer emphatically to the fact, that all details mentioned, especially the application and utilisation recommendation for the products and their system accessories, have been developed under normal conditions, and based on our knowledge and experience. Appropriate storage and usage of the products are assumed. A warranty or reliability of a finished project cannot be deduced because of varying materials, substrates and differing work conditions, neither by any indications nor from verbal statements, irrespective of any legal positions. For the possible accusation that FDT acted intentionally or grossly negligent, the user has to supply evidence that they provided FDT with all information and details necessary for an appropriate and correct evaluation through FDT in written form, immediately available and complete. The user is responsible for ensuring that

the products are suitable for the given application. It is FDT's right to change product specifications without notice. Property rights of third parties are to be considered. In addition our particular sales and delivery terms are valid. The latest version of our product data sheet is obligatory, which can be requested directly through FDT.

All information as well as all technical and drawing data comply with current technical standards and are based on our experience. National standards and regulations must be observed.

Technical changes reserved.
As of October 2015.

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Tip:

Scan the QR code for direct access to the FDT installation videos.



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