

 **Rhepanol® fk
with welding edge**

**Waterproofing
membranes
As of 2012**



Application manual

Supplement to the Application manual Rhepanol fk

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Rhepanol fk is a product based on the proven raw material polyisobutylene (PIB),

- with a welding edge and
- with an integrated highly tear-resistant synthetic fleece.

This application manual for FDT roofing membrane Rhepanol fk with welding edge contains the mandatory instructions for **hot air seam sealing**.

Important notes:

For all other required application operations, the current edition of the application manual for Rhepanol fk shall apply.

- As for Rhepanol fk, the standard membrane overlap is 50 mm.
- The seam must be welded at a width of min. 30 mm.
- The overlap for Rhepanol fk with welding edge for mechanically fastening is 100 mm.
- Individual details are principally formed as with Rhepanol fk with self-sealing edge system.
- Cover tapes and Rhepanol fk with double-sided self-sealing edge are to be replaced by weldable Rhepanol f or Rhepanol h.
- The seam areas highlighted in green in the drawings are not to be carried out with Rhepanol paste, but must be planed, as is usual for hot air welded membranes.
- The preformed parts to be used are made of weldable **Rhepanol f** or **Rhepanol h**.

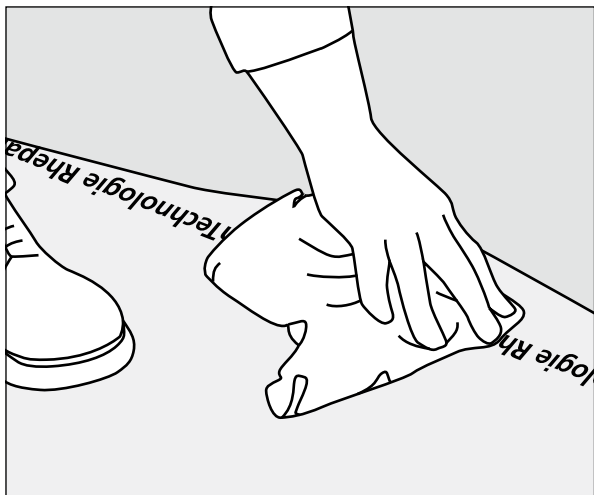
Rhepanol fk bonded fixing:

Application is to be agreed with our FDT Technical Department.

- Before welding always clean the seams on both sides with cleansing tissues and Rhepanol h seam cleaner. This is also necessary when flashing against Rhepanol coated metal sheets and prefabricated accessories.

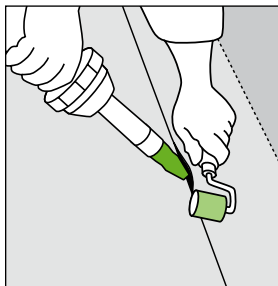
Note:

When handling cleaning agents, thinners etc. we recommend wearing the enclosed protective gloves.



... handheld with the welder and the pressure roller.

With the continuously adjustable, handheld, hot air welder with a 40 mm nozzle (industrial hot air welder), the seam areas are evenly heated and immediately closed with the **FDT Teflon pressure roller**.



■ **The basic welding temperature is 400 °C – 420 °C.**

- Compared to the welding machine, the welding temperature of the handheld welder is slightly lower in order to work more precisely at details like corners.
- The welder must be held under the seam so that the edge of the nozzle projects approx. 3 mm from the edge of the seam (see illustration).

- The seam must be formed with a welding width of min. 30 mm.
- To keep the roofing membranes in place, the membrane seams should be tacked with slight pressure (not welded!) at the back of the overlap.
- In general, particularly when using welding equipment without permanent temperature indication, the seam quality must be controlled by test welds.

... with the welding machine

■ **The basic welding temperature is 520 °C and the welding speed is 2.5 m/min.**

■ The correct settings should be checked by performing test welds before starting to work. Since the nozzle in the rear area of the seam is slightly pressed to the lower membrane when hot air welding with the welding machine, the welding results will always be sufficient in that area, which must not necessarily be true for the front area.

■ Therefore the weld sample must be taken parallel to the seam and must be checked also at the front area of the seam.

In peeling tests, at welding level, the cooled-down weld seam must not peel. For testing purposes, the membrane material must tear.

■ As for reliable sealing of the seams with the welding machine, the same requirements as for manual welding apply, tacking, however, is not necessary

Note:

When starting the machine, a function test must be carried out.

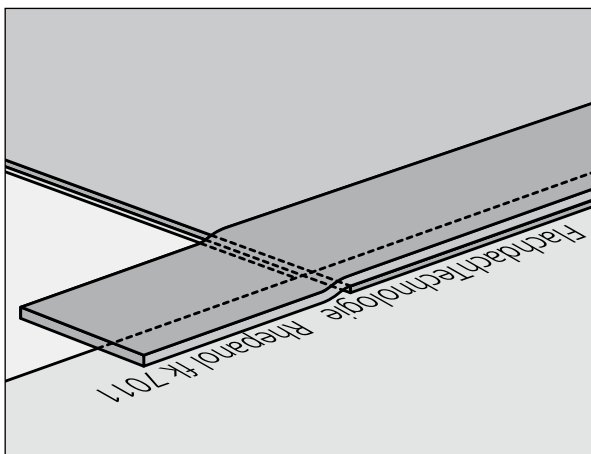
Permanently monitor the welding process!

It is recommended to use a welding aid.

Place the Rhepanol fk welding aid on the seam, flush with the edge or slightly protruding over it. Lengthwise, the welding aid (see page 13) should protrude over the seam so that you can place and remove the welding machine on the welding aid.

Voids in the seam must be avoided!

If the welding aid is slightly set back, welding voids may appear due to low contact pressure at the seam edge. Not using a welding aid may cause folds in the seam.



- Wipe off loose dirt (drilling dust, bitumen residues etc.), depending on the type of dirt clean first with water then detergent, if required, and allow the surface to dry.
 - Thoroughly clean the soiled/weathered area from one side with Rhepanol h intensive cleaner 50 and a fresh cleansing tissue. Frequently change cleansing tissue. Dry the area and allow approx. **1 hour for airing**.
 - Then clean the seam with Rhepanol h seam cleaner and weld it.
- Note:**
- When handling cleaning agents, thinners etc. we recommend wearing the enclosed protective gloves.
 - Cleaning agents/solvents will corrode polystyrene insulation materials, so avoid any contact.
 - Always use separate cleansing tissues for Rhepanol h intensive cleaner 50.

When flashing against Rhepanol prefabricated accessories or Rhepanol coated metal sheets, the welding areas must also be cleaned (see page 4).

- **T-joints** should be secured by slightly melting and chamfering the centre membrane edge, thus preventing capillary action. Avoid overheating of any surfaces. Then repeat cleaning (see page 4).

Note:

Flashing against third-party components made of polypropylene (PP) is possible, however, test welding is required.

Roofing membrane Rhepanol fk with welding edge

Item No.	Colour	Thickness ¹⁾ mm	Form of supply Rolls Length x width (m)
10 10 535	grey	2.5	SL ²⁾ x 1.05
10 10 460	grey	2.5	15 x 1.05
10 10 453	grey	2.5	10 x 1.05
10 10 670	grey	2.5	15 x 0.65
10 10 557	grey	2.5	15 x 0.52
10 10 547	grey	2.5	15 x 0.35

Roofing membrane Rhepanol f hot air weldable

10 00 585	grey	1.5	15 x 1.05
10 00 297	grey	1.5	15 x 0.50
10 00 296	grey	1.5	15 x 0.25
10 10 295	grey	1.5	15 x 0.15

¹⁾ Thickness including 1 mm synthetic fleece.

²⁾ SL = special length.

Rhepanol fk internal corners 90° hot air weldable

Item No. Colour

10 14 490 grey

Rhepanol fk external corners 90° hot air weldable

10 14 590 grey

Rhepanol fk rooflight corner hot air weldable

10 35 513 grey

Rhepanol fk collar hot air weldable

14 18 200 grey

Rhepanol fk universal collar hot air weldable

14 18 845 grey

FDT flat roof vent pipe DN 125/100

Item No.	For flashing against	Colour	For insulation material thicknesses up to (mm)
14 03 040	Rhepanol fk with welding edge	grey	200
14 03 120	Rhepanol fk with welding edge	grey	400

FDT refurbishment vent pipe DN 100

14 03 595	Rhepanol fk with welding edge	grey
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FDT cold roof vent DN 125

14 10 300	Rhepanol fk with welding edge	grey
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Rhepanol h seam cleaner

For cleaning the seams when hot air welding.

Consumption: approx. 10 g/m.

Permissible storage time - min. 4 years.

Item No.	Form of supply
17 30 000	5 kg container

Rhepanol h intensive cleaner 50

For cleaning heavily soiled Rhepanol fk with welding edge/hg areas (and for diluting Rhepanol h contact adhesive 50).

17 30 010	2 kg container
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Rhepanol contact adhesive 50

For bonding Rhepanol fk with welding edge/hg roofing membranes to concrete, timber, polyester, steel etc. (but not polystyrene).

Item No.

Form of supply

17 30 020

12 kg container

17 30 030

4.5 kg container.

Note: Always apply Rhepanol contact adhesive 50 on both the substrate and the underside of Rhepanol fk with welding edge/hg. Note the airing time!

Check: At the finger check, the adhesive must not produce threads.

Consumption: 500 g/m².

FDT cleaning kit

For cleaning seams with Rhepanol h seam cleaner. The cleaning kit contains 150 absorbent cleansing tissues and 100 disposable PE gloves.

17 50 010

Kit

Rhepanol fk welding aid

Made of Rhenofol CG 2.0 mm, width 200 mm, length 16 m. To be used when sealing seams with the welding machine at Rhepanol fk with welding edge.

10 10 582

FDT roofing membrane adhesive

Liquid, solvent-containing, PU-based adhesive. For bonding in beads of FDT roofing membranes with fleece backing.

Permissible storage time - min. 1 year.

14 68 010

10 kg container

Consumption of FDT roofing membrane adhesive

Building height ¹⁾ in wind zone 1 und 2	Inner area DIN 1055	Perimeter and corner areas DIN 1055	min. amount of adhesive beads per metre
0 to 8 m	150 g/m ²	200 g/m ²	8
Over 8 m to 20 m	180 g/m ²	250 g/m ²	8

¹⁾ At building heights over 20 m and for buildings in wind zones 3 and 4 according to DIN 1055-4, as of March 2005, it is necessary to define the amount and distribution of adhesive needed or appropriate object-related measures for membrane position stability.

We explicitly point out that all above information, in particular, all recommendations relating to the processing and application of the roofing membranes and system accessories, are based on our knowledge and experience obtained under standard conditions.

Furthermore, appropriate storage and use of the products is assumed. In view of the different materials, substrates and varying working conditions, no warranty claims in respect of any results or liability can be derived neither from this notice nor from any oral statements, irrespective of any legal relationship.

In the case of FDT being accused of having acted with wilful intent or gross negligence, the user has to provide evidence that he has submitted to FDT on time, in full and effectively all information and details required for a factual and relevant assessment.

It is the responsibility of the user to verify the suitability of the products for their intended use. FDT reserves the right to make changes to the product specifications.

Third party proprietary rights must be complied with.

Moreover, our respective Terms of Sale and Delivery shall apply. In addition, the latest published or available edition of the product data sheet, which can be requested directly from FDT, shall be binding.

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