FRANKEN SYSTEMS

PROCESSING INSTRUCTIONS
DETAILS AND CONNECTIONS / ADHESIVE STRENGTH TEST

SYSTEM FRANKOSIL®

Content

GENERAL

PROCESSING

Note

These processing instructions are designed for trained specialist companies and represent an overview of important training topics that can be looked up again here before processing. In addition, it provides instructions on how to carry out our adhesive strength test set. This means the following pages are no substitute for our training in waterproofing.

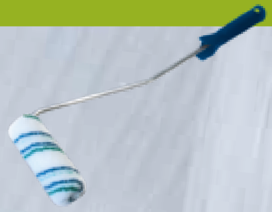
Would you like to take a training course?

These are available at our factory in Gollhofen or directly on site. Our Sales Representative will be happy to help. Find out more at ***www.franken-systems.de***

Tools and aids

for processing

Nylon skin roller + roller handles 12 cm



Pad holder + scrubber

Bag emptier

Cleaning cloth

All-purpose fabric adhesive tape

Flat brush 5 cm

Professional scissors

Spreading trowel + notched trowel blade

Tip for surface waterproofing: *Use 3.5 mm notched trowel blade*

Wood stirrer

Basket agitator

Disposable gloves

Safety goggles

Personal protective equipment (PPE)

- Safety goggles
- Long-sleeved clothing
- Gloves
- Oily skin protection cream

The system concept

Our product brands FRANKOSIL®, REVOPUR® and FRANKOLON® refer to our three system solutions, each designed for special demands and requirements. Our FRANKOTHEK also includes and offers all products that are required for preparing and safely carrying out waterproofing work.

The tools, primers, fleeces and additional products listed here are matched to our FRANKOSIL® system for connections and details in roof and structural waterproofing.

SYSTEM FRANKOSIL®

The convenient 1-component waterproofing system

- **Particularly easy to process**
- **Free of hazardous substances and non-toxic**
- **Fastest variant in combination with the Turbo Shot**

SYSTEM REVOPUR®

The fast 2-component waterproofing system

>>> See brochure Processing instructions 2C

SYSTEM FRANKOLON®

The classic 2-component waterproofing system

>>> See brochure Processing instructions 2C

FRANKOTHEK

PRIMERS

ADDITIONAL PRODUCTS

FLEECES

TOOLS AND AIDS

Small glossary

PR stands for PRIMER and includes the primers PR115 and PR130

TH stands for THINNER and refers to the products TH610 and TH620 for dilution and cleaning

On the following pages we present an overview of the possible applications and packaging units for the primers, fleeces and thinners as well as their possible system uses.

Technical data

Primers/Bonding agent/ Filler/Additional products

FRANKOTHEK

PR110 (FPO PRIMER)

Can be reworked after	approx. 15 mins*
Material consumption	approx. 100 ml/m²
colour shade	yellowish

PR115 (MULTI-PLASTIC PRIMER)

Can be reworked after	approx. 60 mins*
Material consumption	approx. 80-100 ml/m²
colour shade	yellowish

PR130 (SL BONDING AGENT)

Can be reworked after	approx. 15 mins*
Material consumption	approx. 100 ml/m²
Colour shade	colourless

FRANKOSIL SPEEDFIX
(FILLER AND MODELLING COMPOUND)

processing time	approx. 20 mins*
Can be reworked / walked on after	approx. 1 h*
Material consumption	according to application
Colour shade	7047 (telegrey 4)

TH610 (V600)

Material consumption	according to application
Colour shade	colourless

* Measurements taken at 21°C and a rel. humidity of 50%. Weather conditions such as wind, humidity and temperature will change the specified values. For further information, please refer to our technical data sheets.
You can find these in the download area on ***www.franken-systems.de***.

Technical data

Sealing systems

SYSTEM FRANKOSIL®

FRANKOSIL® 1K Plus / 1K Plus Graphite

Rainproof after	approx. 1 h*
Can be reworked / walked on after	approx. 12 h*
Material consumption	approx. 3.2 kg/m²
Colour shades	approx. RAL 7047 - telegrey 4 approx. RAL 7016 – anthracite grey

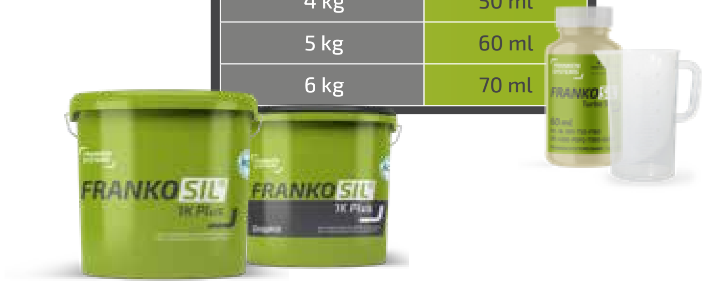
FRANKOSIL® Turbo Shot

creates the following changes in FRANKOSIL® 1K PLUS:

Rainproof after	approx. 30 mins*
Can be reworked after	approx. 1 h*
Can be walked on after	approx. 1.5 h*
Colour shade	colourless

Mixing ratio

FRANKOSIL® 1K Plus	Turbo Shot
2 kg	30 ml
3 kg	40 ml
4 kg	50 ml
5 kg	60 ml
6 kg	70 ml



Instructions for

Cleaning & priming

Substrate preparation

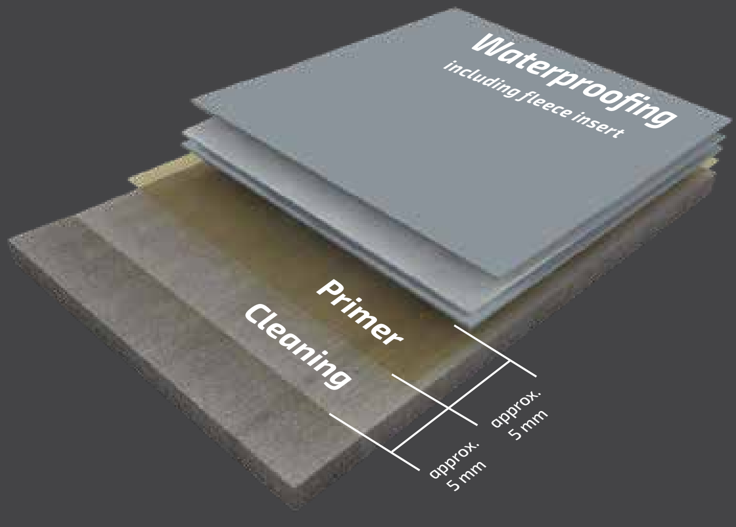
Free from dirt, oils or greases as well as other coatings and loose components.

The area to be sealed must have sufficient material strength.

Standing water, ice and snow on the substrate are not permitted for sealing work.

Only cover an area that can be recoated in the same working day. If this is not done, the primer must be removed by sanding or by cleaning with TH610 (V600).

Do not pour the primer directly onto the surface to be sealed. Do not use the same cloth for the primer that was previously used to apply the cleaner.



TIP: We recommend always cleaning a larger area than the actual area to be sealed (see graphic).

PR110 (FPO Primer)

250 ml / 1 l tin bottle

1. Clean the substrate with **TH610 (V600)** (with a clean cloth!) until no residue is visible on the cleaning cloth.

2. Pour **PR110 (FPO Primer)** into a clean container.

3. Lightly dip the scrubbing pad with scouring fleece into the filled container. Then apply **PR110 (FPO Primer)** in circular movements on the surface with the scrubbing pad.

PRACTICAL TIP

In the absence of a scrubbing pad, the following alternative work steps are possible:

1. Complete steps 1 to 2

2. Sanding the cleaned substrate with sandpaper or sanding disc (e.g. ZEC disc).

*3. Remove sanding dust with **TH610 (V600)** and clean again with a clean cloth (!) and then allow to dry out*

*4. **Apply PR110 (FPO Primer)** **thinly** on the sanded surface with a clean cloth, using circular movements*

PR115 (multi-plastic primer)

500 ml combination container

SYSTEM REVOPUR® SYSTEM FRANKOLON®

1. Clean the substrate with **TH610 (V600)** (with a clean cloth!) until no residue is visible on the cleaning cloth.

2. Add hardener component B completely to the base component.

3. Close the aluminium bottle well and shake well for approx. 30 seconds.

4. Use a brush to apply PR115 (multi-plastic primer) to the prepared surface with approx. 80-100 ml/m².

PR130 (SL bonding agent) 250 ml / 1 l tin bottle

1. Clean the substrate **TH610 (V600)** (and a clean cloth!) until no residue is visible on the cleaning cloth.

2. Then roughen the cleaned substrate with sandpaper or sanding disc
(e.g. ZEC disc - grit P40-60).

3. Remove sanding dust and clean again with **TH610 (V600)**. Apply **PR130 (SL bonding agent)** to a new and clean cloth and wet the substrate thinly with it.

FRANKOSIL SPEEDFIX 2 kg combination plastic container

1. Knead the bags of component **A** and component **B** thoroughly for approx. 30 seconds before opening.

2. Empty component **A** FRANKOSIL® 1K PLUS completely into the outer packaging bucket.

3. Add all of component **B** FRANKOSIL® SPEEDFIX filler.

4. Mix homogeneously and without any lumps using a mixing paddle.

5. Apply the filler and modelling compound with a suitable tool (e.g. trowel or filler) to the prepared substrate within 20 mins. Sanding is normally required for mineral substrates.

SYSTEM FRANKOSIL®

Instructions for 1C Waterproofing

Preparing

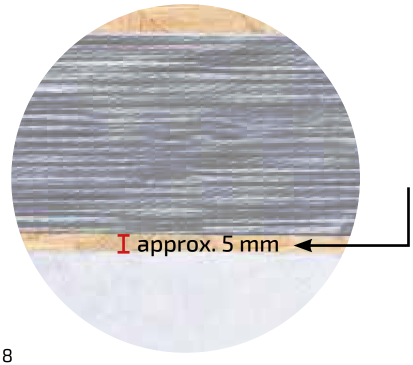
1. Measure the area to be sealed and cut the fleece accordingly. Always allow for an overlap of 5 cm for individual fleece cuts.

2. Apply adhesive tape approx. 5 mm above the outer edge of the fleece cut.

PRACTICAL TIP

Always apply the adhesive tape to a cleaned surface (see p. 12).

The areas to be sealed must always be carefully taped without gaps.



IT MUST LOOK LIKE THIS

Apply the tape so that it is **approx. 5 mm above the outer edge of the polyester fleece.** The fleece must not reach the adhesive tape without gaps.

Waterproofing

FRANKOSIL® 1K Plus 6 kg / 14 kg plastic container

3. **FRANKOSIL® 1K Plus** is stirred evenly with a wood stirrer or basket agitator.

PRACTICAL TIP

FRANKOSIL® 1K Plus is too thick in cool weather?

The liquid plastic can generally be diluted with up to max. 3% by volume (corresponds to approx. 90 ml per 3 kg or 180 ml per full 6 kg bucket).

*To do this, stir **TH610 (V600)** thoroughly into the liquid plastic (approx. 3 mins).*

Process the diluted material immediately and do not store/ use again.

When using FRANKOSIL® Turbo Shots in FRANKOSIL® 1K Plus, do not use TH610 (V600) for dilution!

FRANKOSIL® Turbo Shot

4. **FRANKOSIL® Turbo Shot** must be shaken thoroughly. Then empty the amount of **FRANKOSIL® Turbo Shot** specified in the consumption table and stir it evenly into the **FRANKOSIL® 1K Plus**.

5. Stir **FRANKOSIL® 1K Plus** evenly with a wood stirrer or basket agitator.

PRACTICAL TIP

*The **FRANKOSIL® Turbo Shot** not only accelerates the curing of **FRANKOSIL® 1K Plus** to approx. 90 mins, but also reduces the processing time to max. 15 mins.*

For the correct measurement of FRANKOSIL® Turbo Shots, simply use the measuring cup provided:

Mixing ratio

FRANKOSIL® 1K Plus	Turbo Shot
2 kg	30 ml
3 kg	40 ml
4 kg	50 ml
5 kg	60 ml
6 kg	70 ml

Applying the 1st layer

Apply the 1st layer either with a brush...

or roller...

or with spreading trowel

Apply approx. 1/2-2/3 of the specified amount of **FRANKOSIL® 1K Plus** in consistent layer thicknesses.

Inlaying the polyester fleece

The fleece is inlayed into the still fresh sealing of the 1st layer without folds and voids and rolled on with a dry nylon skin roller. The fleece cuts must overlap one another by at least 5 cm.

Important: The fleece must be free of voids and evenly saturated. This is easily recognisable from the visual appearance.

Caution: The fleece must not be pushed flush against the edge of the adhesive tape (see p. 18)!

Applying the 2nd layer

Apply the 2nd layer either with a brush...

or with spreading trowel

After inlaying the fleece into the still fresh 1st layer, apply the rest of the specified quantity, 1/2 to 1/3 of **FRANKOSIL® 1K Plus,** to the surface.

PRACTICAL TIP

No stress with FRANKOSIL® 1K Plus: *The 1st and 2nd layer can be applied within 1.5 hours of each other and, if something needs to be reworked – no problem: up to 24 hours after the sealing work, it can be reworked again without additional measures!*

SEALED SUCCESSFULLY?

The following properties show whether sufficient material has been used immediately after the sealing work:

1. **Glossy surface**
2. **Slight surface structure visible**

If the surface is matt, this means too little material has been applied.

Remove the adhesive tapes immediately afterwards.

Remove the tape from top and bottom

Waterproofed connection

DO YOU WANT TO REWORK THE SEALING?

If the detail sealing has visible defects, then this can be reworked up to 24 hours after the last material application. After this period, the following must be done before reworking:

1. **Clean the seal with TH610 (V600) and allow it to dry out for 15-20 minutes.**
2. **Apply 80-100 ml/m² PR115 (multi-plastic primer) as an activator and allow it to dry out for 60 minutes.**

FRANKOTHEK

Instructions for

Fleece
cuts

Roof aerator Fleece cuts

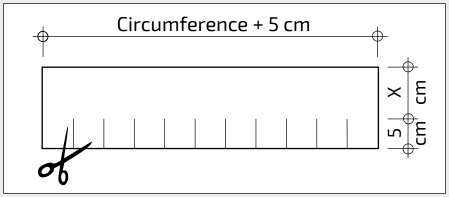
1. Compare the substrate with the base coat table. The base coat must be applied over the waterproofing.

RA=Roof aerator

Cut RA1

Cut according to the sketch.

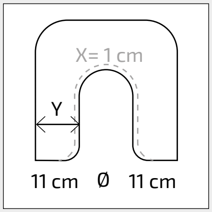
X= connection height (at least 15 cm)



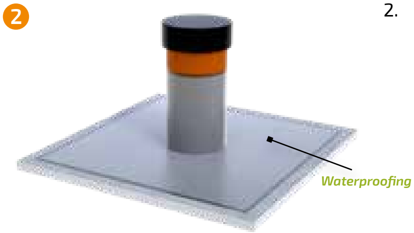
Cut RA2

Cut according to the sketch.

X= connection height (1 cm)
Y= cuff width (at least 11 cm)



2 pc.

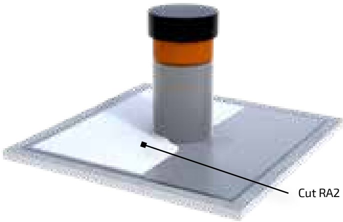


2. Apply approx. 1/2 -2/3 of the specified amount of the first layer of sealing in even thicknesses.

3.1 The fleece is inserted into the still fresh sealing of the 1st layer without folds and voids and rolled on with a dry nylon skin roller.

3.2 Apply the 2nd layer: after inlaying the fleece into the still fresh 1st layer, the rest of the specified amount, 1/2 to 1/3 of the sealing, is applied to the surface.

After application, the fleece must look as if it has a fully saturated, glossy surface with a light structure.



4.1 Inlay further fleece cuts and proceed as described in Points 2 to 3.

4.2 In areas of multiple overlaps, saturate the fleece with the 1st and 2nd each level.

5. Then immediately re-move the adhesive tape.

Outside corner *Fleece cuts*

1. Compare the substrate with the base coat table. The base coat must be applied over the waterproofing.

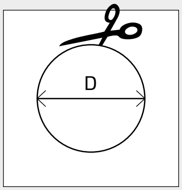
OC=Outside corner

Cut OC 1

1) Cut according to the sketch.

2) Stretch the edge of the fleece cut from 4/4 to 5/4.

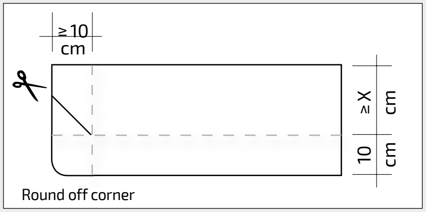
Diameter = 10 cm



Cut OC 2

Cut according to the sketch and round off any corners that lie on top or cut them off at an angle of 45°.

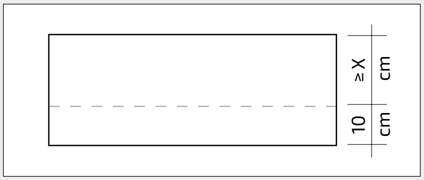
X= connection height (at least 15 cm)



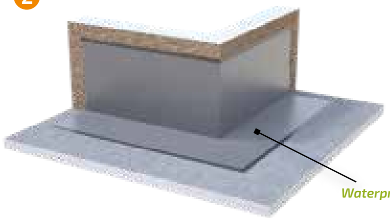
Cut OC 3

Cut according to the sketch and round off any corners that lie on top or cut them off at an angle of 45°.

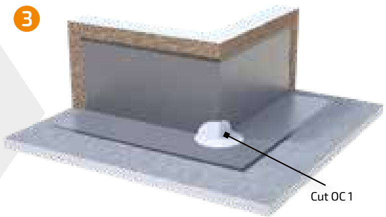
X= connection height (at least 15 cm)



Tip: Alternatively, internal and external corners can be sealed more quickly and safely with the prefabricated fleece corners.



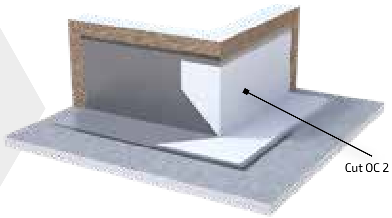
2. Apply approx. 1/2 -2/3 of the specified amount of the first layer of sealing in even thicknesses.

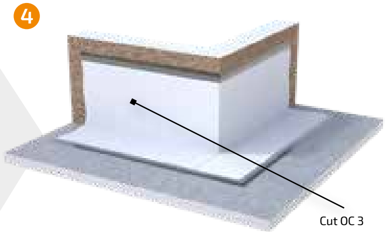


3.1 The fleece is inserted into the still fresh sealing of the 1st layer without folds and voids and rolled on with a dry nylon skin roller.

3.2 Apply the 2nd layer: after inlaying the fleece into the still fresh 1st layer, the rest of the specified amount, 1/2 to 1/3 of the sealing, is applied to the surface.

After application, the fleece must look as if it has a fully saturated, glossy surface with a light structure.





4.1 Inlay further fleece cuts and proceed as described in Points 2 to 3.

4.2 In areas of multiple overlaps, saturate the fleece with the 1st and 2nd each level.

5. Then immediately remove the adhesive tape.

Inner corner *Fleece cuts*

1

1. Compare the substrate with the base coat table. The base coat must be applied over the waterproofing.

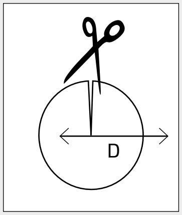
IC=Inner corner

Cut IC 1

1) Cut according to the sketch.

2) Cut the fleece cut towards the centre.

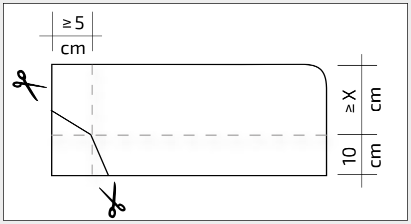
Diameter = 10 cm



Cut IC 2

Cut according to the sketch.
Round off any corners that lie on top or cut them off at an angle of 45°.

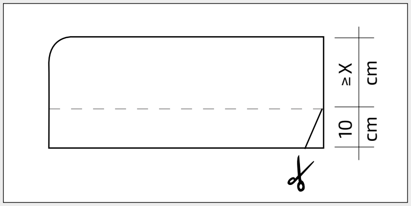
X= connection height
(at least 15 cm)



Cut IC 3

Cut according to the sketch.
Round off any corners that lie on top or cut them off at an angle of 45°.

X= connection height
(at least 15 cm)

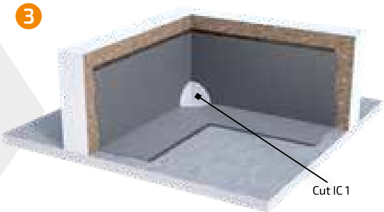


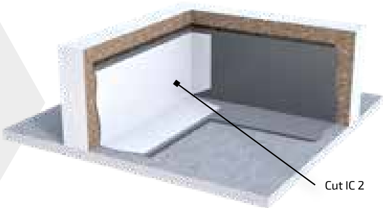
Tip: Alternatively, internal and external corners can be sealed more quickly and safely with the prefabricated fleece corners.

2

2. Apply approx. 1/2 -2/3 of the specified amount of the first layer of sealing in even thicknesses.

3



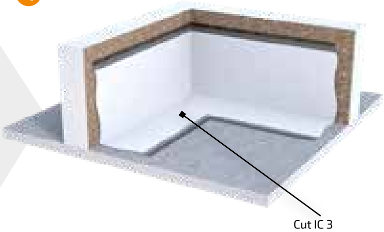


3.1 The fleece is inserted into the still fresh sealing of the 1st layer without folds and voids and rolled on with a dry nylon skin roller.

3.2 Apply the 2nd layer: after inlaying the fleece into the still fresh 1st layer, the rest of the specified amount, 1/2 to 1/3 of the sealing, is applied to the surface.

After application, the fleece must look as if it has a fully saturated, glossy surface with a light structure.

4



4.1 Inlay further fleece cuts and proceed as described in Points 2 to 3.

4.2 In areas of multiple overlaps, saturate the fleece with the 1st and 2nd each level.

5

5. Then immediately remove the adhesive tape.

Skylight dome *Fleece cuts*

1

1. Compare the substrate with the base coat table. The base coat must be applied over the waterproofing.

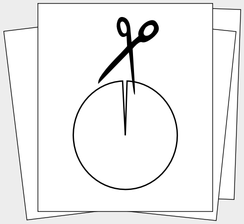
SD= Skylight dome

Cut SD 1

Cut according to the sketch.

1) Make 4 round fleece cuts (one for each corner) with a diameter of approx. 20 cm.

2) Cut the fleece cut towards the centre.

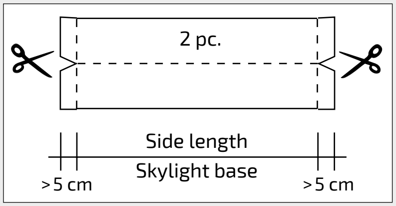


Cut SD 2

Cut according to the sketch.

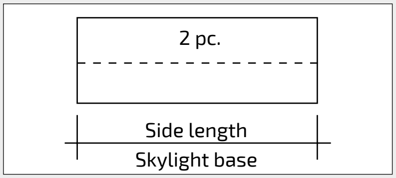
1) **Width:** Guide the fleece to the lower edge of the skylight base. Lay out at least 10 cm on the flat roof surface.

2) **Length:** Lower side length of the skylight base plus at least 5 cm on each side.



Cut SD 3

Cut according to the sketch.



2

2. Apply approx. 1/2 -2/3 of the specified amount of the first layer of sealing in even thicknesses.

3

3.1 The fleece is inserted into the still fresh sealing of the 1st layer without folds and voids and rolled on with a dry nylon skin roller.

3.2 Apply the 2nd layer: after inlaying the fleece into the still fresh 1st layer, the rest of the specified amount, 1/2 to 1/3 of the sealing, is applied to the surface.

After application, the fleece must look as if it has a fully saturated, glossy surface with a light structure.

4

4.1 Inlay further fleece cuts and proceed as described in Points 2 to 3.

4.2 In areas of multiple overlaps, saturate the fleece with the 1st and 2nd each level.

5

5. Then immediately re-move the adhesive tape.

Procedure *Fleece cuts*

1

1. Compare the substrate with the base coat table. The base coat must be applied over the waterproofing.

P= Procedure

Cut P 1

Cut according to the sketch.

Required strips:

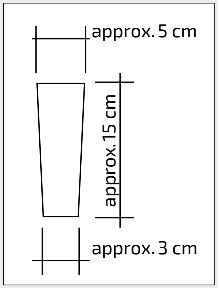
Diameter procedure x 3.141 / (medium width fleece cut – 1 cm side overlap)= approx. number of pieces

Example:

10 cm x 3.141 = 31.41

31.41 / (4 cm – 1 cm) = 10.47

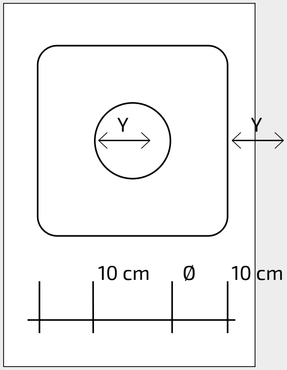
Results in: approx. 11 pieces



Cut P 2

Cut according to the sketch.

Y= cuff width (at least 10 cm)



2

2. Apply approx. 1/2 -2/3 of the specified amount of the first layer of sealing in even thicknesses.

3

3.1 The fleece is inserted into the still fresh sealing of the 1st layer without folds and voids and rolled on with a dry nylon skin roller.

3.2 Apply the 2nd layer: after inlaying the fleece into the still fresh 1st layer, the rest of the specified amount, 1/2 to 1/3 of the sealing, is applied to the surface.

After application, the fleece must look as if it has a fully saturated, glossy surface with a light structure.

4

4.1 Inlay further fleece cuts and proceed as described in Points 2 to 3.

4.2 In areas of multiple overlaps, saturate the fleece with the 1st and 2nd each level.

5

5. Then immediately remove the adhesive tape.

Instructions for

Adhesion strength test

Introduction *Adhesion strength test*

In renovation projects, the substrate cannot always be determined beyond doubt. There are two ways to check the adhesion of the sealing to the substrate:

Option one would be to send a DIN-A4 sized sample of the substrate to our laboratory for extensive adhesion strength tests. These tests can take between four to seven weeks.

Alternatively, it is possible to carry out a peel test (adhesive strength test) with the **FRANKOSIL® 1K Plus To Go Set** directly on the construction site in accordance with the Swiss standard SIA 281/2. This test period is only seven days.

THE FOLLOWING STEPS MUST BE CARRIED OUT FOR THIS:

Always lay out 3 test areas (approx. 30 x 30 cm) with different substrate preparations. **Important: Leave the fleece overhanging on one side so that you can pull on it later.**

1. TEST SURFACE:

- Coarse contamination and loose parts of the surface to be sealed must be removed in advance.
- Clean the substrate with **TH610 (V600)**, allow to dry out for 15 - 20 mins
- Apply **FRANKOSIL® 1K Plus** 1st layer with approx. 1.6 kg/m²
- Inlay the fleece
- Apply **FRANKOSIL® 1K Plus** 2nd layer 1.6 kg/m²

2. TEST SURFACE:

- Coarse contamination and loose parts of the surface to be sealed must be removed in advance.
- Clean the substrate with **TH610 (V600)**, allow to dry out for 15 - 20 mins
- Apply 80-100 ml/m² **PR115 (multi-plastic primer)** and allow it to dry out for 60 minutes
- Apply **FRANKOSIL® 1K Plus** 1st layer with approx. 1.6 kg/m²
- Inlay the fleece
- Apply **FRANKOSIL® 1K Plus** 2nd layer 1.6 kg/m²

3. TEST SURFACE:

- Coarse contamination and loose parts of the surface to be sealed must be removed in advance.
- Clean the substrate with **TH610 (V600)**, allow to dry out for 15 - 20 mins
- Priming with **PR130 (SL bonding agent)** 100 ml/m² with scouring pad, allow to dry out for 15 - 20 mins.
- Apply **FRANKOSIL® 1K Plus** 1st layer with approx. 1.6 kg/m²
- Inlay the fleece
- Apply **FRANKOSIL® 1K Plus** 2nd layer 1.6 kg/m²

The test areas must be left for 7 days before they are pulled.

EVALUATION SYSTEM:

1/2 - Poor adhesion ¦ 3 - Good adhesion ¦ 4 - Very good adhesion

<u>1/2 - Poor adhesion</u>
FRANKOSIL® 1K Plus can be removed from the substrate without leaving any residue and without exerting much force.

<u>3 - Good adhesion</u>
FRANKOSIL® 1K Plus cannot be pulled off completely by hand despite great effort. Separation/ breakage takes place in **FRANKOSIL® 1K Plus.**

<u>4 - Very good adhesion</u>
FRANKOSIL® 1K Plus can-not be pulled off by hand.

Sufficient adhesion of the sealing to the substrate is ensured at evaluation levels 3 and 4.

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999990-2021en 10/2023 With the above information we would like to offer you a brief, non-binding insight into our product range and its possible areas of application. We expressly reserve the right to make changes and additions. The respective order documents are authoritative for the content of contracts. We are always available for an individual consultation.