

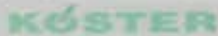
The KÖSTER logo is positioned in the top right corner of the white text box. It consists of the word "KÖSTER" in a bold, blue, sans-serif font, with a stylized blue lightning bolt symbol integrated into the letter "O".

KÖSTER

Waterproofing Systems

KÖSTER MS-Flexfolie

Installation instructions for use with
KÖSTER TPO

A close-up photograph of a white bucket of MS-Flexfolie. The bucket has a green band around its middle with the text "MS-Flexfolie" printed on it. In the background, a light-colored surface has the word "KÖSTER" printed in green, matching the brand's color scheme.

The solution for difficult
connections with KÖSTER TPO

General

KÖSTER MS-Flexfolie is an environmentally friendly, one-component, solvent-free, highly elastic and crack-bridging waterproofing based on MS polymers. The material is characterized by an excellent adhesive bond to a large number of substrates and can be processed on both dry and slightly moist surfaces.

The product is processed as a liquid and therefore enables a very simple and seamless integration of even difficult architectural details. In addition, KÖSTER MS-Flexfolie is UV-resistant and has an approval for use as a roof waterproofing according to the EAD 030350-00-0402, formerly ETAG 005.

The material is free of isocyanates, quickly rainproof, withstands occasional foot traffic, and is resistant to ageing, hydrolysis, salt, and frost.



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Fields of application

- As a solution for difficult connections and details with KÖSTER TPO, TPO Pro, and ECB roofing membranes, for example. on patio doors
- For creating difficult details with KÖSTER synthetic roofing membranes such as I-beams
- For connecting KÖSTER roofing membranes with other synthetic membranes
- For connecting KÖSTER roofing membranes to other materials such as hard PVC, metals, bitumen, etc.
- As an independent waterproofing

Tools

- Paint brush
- Nylon fur roller
- Notched trowel
- Scissors
- Duct tape
- Safety goggles
- KÖSTER TPO Cleaning Tissue
- Sandpaper
- Grinding wheel
- Protective gloves

Substrate

KÖSTER MS-Flexfolie is characterized by very good adhesion to a variety of substrates, such as TPO roofing membranes based on PE and PP, ECB roofing membranes, bitumen membranes, plastics, clinker, concrete, and metals.

The substrate must be dry to slightly damp, free of frost, grease, oil, and laitence. Remove old paint, oil, grease, and organic substances by grinding or milling. Concrete substrates must harden for at least 28 days.

Weathered or contaminated plastic membranes should be cleaned with KÖSTER TPO Cleaner.

Processing on copper, PVC membranes, EPDM, and in permanently wet areas is not possible.

Substrate preparation

For most materials, a pre-treatment with a primer/undercoat according to Table 1 is required.

Following products are used:

KÖSTER TPO Primer for MS-Flexfolie (RT 109 001)

KÖSTER MS-Flexfolie (W 200 008)

KÖSTER PU Primer 120 (J 138 250)

KÖSTER TPO Cleaner (RT 105 002)

KÖSTER TPO Primer must be stirred or shaken well before application.

The primer must be rubbed vigorously into the surface using a KÖSTER TPO Cleaning Cloth. After a drying time of approx. 10 – 15 minutes, possibly longer in cold weather, the KÖSTER MS-Flexfolie can be applied.

Only prepare as much area as can be worked on in max. one hour.

In the case of certain substrates, the surface must also be sanded. A very thorough roughening must be carried out, especially in the edge areas.



Substrate	Sanding the Surface	Cleaning with KÖSTER TPO Cleaner	KÖSTER TPO
KÖSTER TPO / TPO F / TPO SK (FR)	✓		
KÖSTER TPO Pro	✓	✓	
KÖSTER ECB / ECB F	✓		
TPO/FPO PE based roofing membranes ¹⁾	✓		
TPO/FPO PP based roofing membranes ¹⁾	✓		
PVC roofing membranes ¹⁾	✓		
Bitumenous membranes ¹⁾			
Metals ¹⁾²⁾	✓		
Plastics ¹⁾⁴⁾	✓		
Concrete			
Wood and wood products			

1) Check with bond test

2) Besides copper

3) With pull-off test if necessary

4) Except for EPDM and PVC membranes

KÖSTER Primer	KÖSTER Primer PU 120	KÖSTER CT 121	KÖSTER Schnellreparatursystem EP Primer 2K
✓			
✓			
✓			
✓			
✓			
✓			
✓ ³⁾	✓ ³⁾		
✓ ³⁾	✓ ³⁾		
		✓	
			✓

For other substrates, please contact the
KÖSTER BAUCHEMIE AG.

Important: Due to the variety of materials / products on the market, an adhesion test **must always** be carried out!

Adhesion Test

In the case of unknown or critical substrates, an adhesion test must be carried out before starting the waterproofing.

For this purpose, depending on the substrate a primer is selected - KÖSTER TPO Primer for MS-Flexfolie or KÖSTER PU Primer 120, and is applied to a cleaned, dry area of the surface and, after drying, KÖSTER MS-Flexfolie is applied with an approx. 5 cm wide strip of KÖSTER Superfleece. One end of the strip is left freely exposed.

Also apply to a roughened surface.



After a curing time of at least 2 days at 15 – 20 °C (longer at lower temperatures), the adhesive strength is tested and assessed by peeling it off by hand. The specimen must be fully cured prior to the peel strength test. Pulling the sample too early could lead to incorrect results. It is not necessary that the sample can only be pulled off the substrate with destruction, since the force that is achieved when pulling off by hand is significantly higher than the adhesive strength required for a functional waterproofing. When pulling off the hardened sample, a clear resistance should be felt, this is usually completely sufficient for an applicable waterproofing.

If sufficient adhesion is not achieved, we recommend consulting the KÖSTER application technology department.



Processing

After cleaning and preparing the substrate, KÖSTER MS-Flexfolie is applied in two layers (consumption approx. 1.5 kg/m² per 1 mm layer thickness).

The edge areas are masked with adhesive tape to ensure that the waterproofing is properly completed.

Before processing, the KÖSTER MS-Flexfolie is stirred well.





The first layer is installed with the help of a brush, roller or notched trowel.

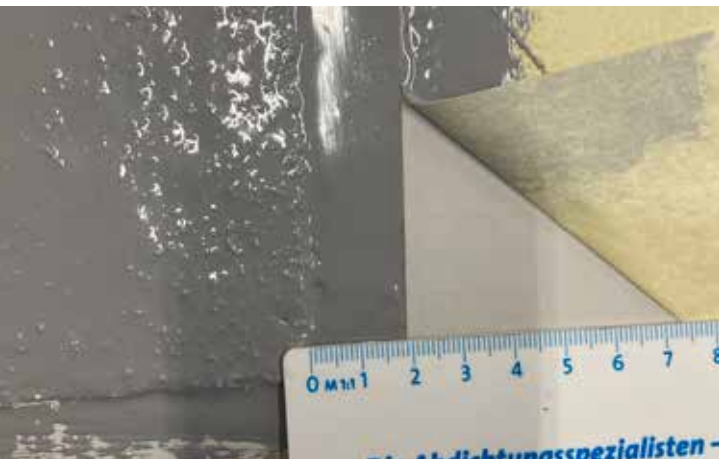


Immediately lay KÖSTER Superfleece into the fresh MS-Flexfolie without creating any creases or bubbles and press it down with a roller.



The second layer is then applied “fresh in fresh”. A total layer thickness of at least 2,1 mm including the reinforcement layer must be achieved.

The fleece reinforcement must be completely covered with MS-Flexfolie and the MS-Flexfolie extended a minimum of 5 cm beyond the fleece. The overlap must not run against the flow direction of the water. In the overlapping area, care must be taken to ensure that the fleece inserts are fully saturated with KÖSTER MS-Flexfolie.



At the edge, the waterproofing must completely cover the fleece and protrude by a minimum of 2 cm.

KÖSTER MS-Flexfolie should be processed in a temperature range of +5 °C and +30 °C. Ideally, no precipitation should occur within 8 hours after application.

Depending on the weather, the waterproofing is fully dry after approx. 48 hours.

Details

At connections, the KÖSTER MS-Flexfolie must be laid at least 15 cm above the top edge of the covering.

If KÖSTER roofing membranes or other waterproofing products are connected using MS-Flexfolie, it must be at least 15 cm above the horizontal waterproofing level.

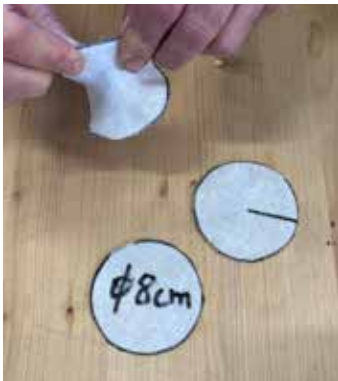
KÖSTER Superfleece must also always be installed on connections and details.





Corners

Reinforcement using KÖSTER Superfleece must be installed on the inside and outside corners.



Personal Protection

Occupational health and safety regulations must be observed. Wear suitable protective gloves (e.g. nitrile gloves) and protective goggles.



We are there for you – worldwide.

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// Contact us

KÖSTER BAUCHEMIE AG
Dieselstraße 1-10 • D-26607 Aurich
Tel.: +49 4941 9709 0
E-Mail: info@koster.eu
www.koster.eu

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Waterproofing Systems

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