

## INSTALLATION GUIDELINES

### IKO HYBRITECH MS DETAIL

These installation instructions have been produced according to the current technical standards. Any directives, standards, rules or national regulations, which are stricter than these installation instructions, must be respected.

In circumstances that defer from the above, please contact IKO.

### DESCRIPTION

IKO hybritech MS Detail is a solvent-free, isocyanate-free and odourless single-component liquid waterproofing system based on flexible hybrid polymers. It is used to create a waterproof connection with complex details, such as flashings, domes, roof lights, chimneys, air-conditioning nozzles, gutters, etc.

### ADVANTAGES

IKO hybritech MS Detail has the following advantages:

- Seamless membrane
- Easy to apply and flameless
- Rapid application: wet on wet
- Solvent-free and odourless
- Isocyanate-free
- Extended drying time – no pot life
- Easy to use for precision work in difficult areas
- Compatible with IKO enertherm and other insulation materials

### TECHNICAL SUPPORT

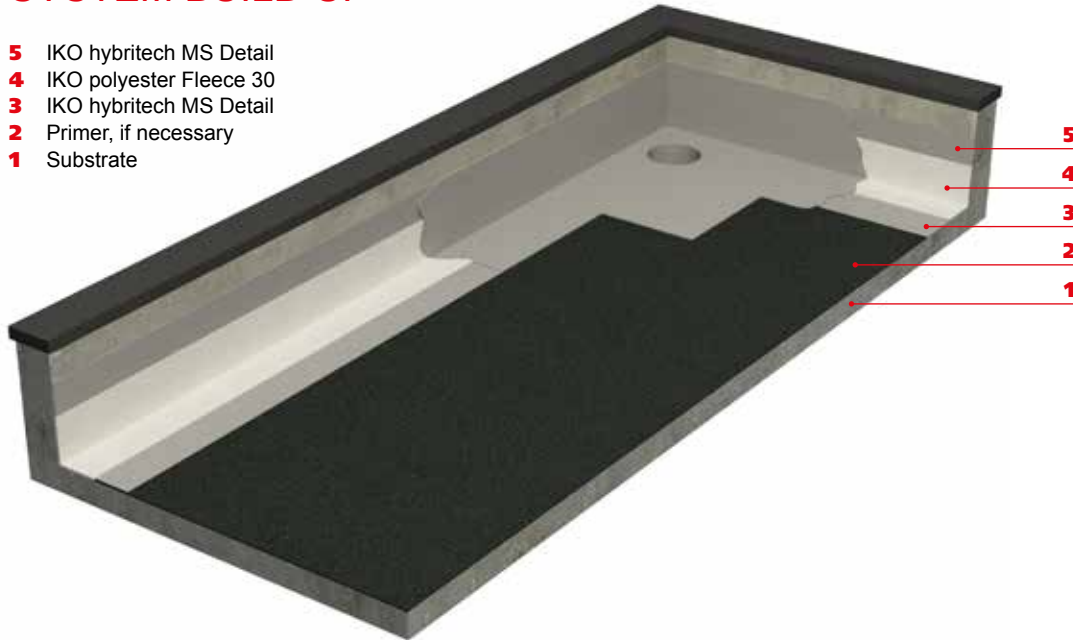
IKO assists its construction partners during all stages of the construction process, from the specifications, through the installation to the delivery of the project and after-care.

In terms of project follow-up, IKO provides technical expertise and advice, in the form of measurements, inspections and presence on site while work is conducted.

For technical assistance before, during or after your project, please contact the IKO project manager or technical support.

## SYSTEM BUILD UP

- 5** IKO hybritech MS Detail
- 4** IKO polyester Fleece 30
- 3** IKO hybritech MS Detail
- 2** Primer, if necessary
- 1** Substrate



## PREPARATION

### 1 - Working with IKO hybritech MS Detail

IKO hybritech MS Detail is a single-component resin based on hybrid polymers. The drying time of the resin depends on the relative humidity of the air and ambient temperature. With relative humidity level of 50% and 20°C IKO hybritech MS Detail is rainproof after 3 hours and 2 mm of IKO hybritech MS Detail fully cures in 24 hours.

IKO hybritech MS Detail must not be mixed with a spatula before use. A mixer must not be used under any circumstances.

It is important to clean any tools immediately after use with IKO tech Cleaner.

Once the tin of IKO hybritech MS Detail has been opened and the product has not been fully used, it is normal that a skin forms on the product surface. Before using the product, you will need to cut the skin with the tip of a Stanley knife and remove it from the product. Above all, do not mix the skin into the product.

IKO hybritech MS Detail can be used:

- If the air, substrate temperature and resin temperatures are between the minimum and maximum level, as defined in Table 1.
- If the relative humidity level is lower than 85%.
- If it is not raining or foggy.
- On a dry substrate, which is not frozen.
- On a substrate that is not affected by rising damp (for example, water vapour from inside the building due to the absence of a vapour barrier or rising damp on a ground floor terrace due to the absence of a moisture barrier under the concrete)

Table 1: Acceptable temperatures when using IKO hybritech MS Detail

Product	Temperature in °C		
	Ambient	Substrate	Product
IKO hybritech MS Detail	+5°C - +35°C	+5°C - +30°C	+5°C - +30°C

The temperature of the substrate must be at least 3°C above the dew point during application and curing.

## 2 - Checking and preparing the substrate

IKO hybritech MS Detail can only be applied to a substrate that is clean, dry and free of dust, as well as loose particles. The maximum moisture content of the substrate must measure 18% on the wood scale using a Protimeter or a maximum of 6% measured using a Tramex / Doser. The slope of the substrate must be at least 2% towards the water drains in order to prevent any water from stagnating. IKO hybritech MS Detail is not able to withstand long-term water stagnation. Cracks, blisters, expansion joints and finishes on existing substrate edges must be checked and, if necessary, repaired or replaced.

Table 2 shows the compatibility of IKO hybritech MS Detail with various substrates, as well as the necessary preparation of these substrates.

Please contact IKO for information about any substrates that are not mentioned in this table.

Table 2: Compatibility of IKO hybritech MS Detail

Substrate	Preparation	Primer	Comments
<b>1 - Waterproofing membranes</b>			
APP bitumen	Remove all loose particles (talc, sand, chips) using a stiff brush.	None	The membrane must adhere sufficiently to the substrate. Any cracks and blisters must first be repaired. Adhesion to a sanded APP bitumen membrane must first be checked. Use IKO tanetech Porous Primer if the adhesion isn't sufficient.
SBS bitumen	Remove all loose particles (chipping, aggregate) using a stiff brush.	None	The membrane must adhere sufficiently to the substrate. Any cracks and blisters must first be repaired.
PVC	Clean the membrane using IKO tech Cleaner.	IKO tech Non-Porous Primer	The membrane must adhere sufficiently to the substrate. Any cracks and blisters must first be repaired.
EPDM	First abrade the membrane using sanded paper and then clean it using IKO tech Cleaner.	None	The membrane must adhere sufficiently to the substrate. Any cracks and blisters must first be repaired.
Resitrix	First abrade the membrane using sanded paper and then clean it using IKO tech Cleaner.	None	The membrane must adhere sufficiently to the substrate. Any cracks and blisters must first be repaired.
TPO			Please contact IKO.
TPE		None	Het membraan moet voldoende hechten aan de ondergrond. Plaatselijke scheuren of blazen moeten eerst hersteld worden.
PIB			Not compatible
ECB			Not compatible
PE			Not compatible

Table 2: Compatibility of IKO hybritech MS Detail

Substrate	Preparation	Primer	Comments
<b>2 - Cured liquid waterproofing</b>			
1K PU	Clean the membrane.	None	
1K Hybrid	Clean the membrane.	None	
2K PMMA	Clean the membrane.	IKO tech Non-Porous Primer	
<b>3 - Insulation panels</b>			
PIR/ PUR/ EPS/ PF	Prepare roofs by applying a self-adhesive carrier membrane (IKO base stick T/SA).		Please contact IKO.
<b>4 - Mineral Substrates</b>			
Concrete and mortar	First abrade the waxed concrete.	IKO tech Non-Porous Primer or IKO tanetech Porous Primer on very porous substrates.	The substrate must have been in place for at least 28 days. Remove any laitance from the cement. It must have a compressive strength of at least 25 N/mm <sup>2</sup> and a tensile strength of at least 1.5 N/mm <sup>2</sup> .
Sound tiling	First abrade the substrate.	IKO tanetech Porous Primer	Remove any loose or damaged tiling and repair in order to obtain a sound substrate (resin mortar reinforced with polypropylene fibres, new tiling). First dry out any pockets of water under the tiling.
<b>5 – Metals</b>			
Ferrous metals (steel)	First sand the metallic substrate in order to clean it. All rust must be removed from rusty substrates. Clean using the IKO tech Cleaner solvent.	None	
Non-ferrous metals (aluminium, copper, lead, zinc)	First sand the metallic substrate in order to clean it. All rust must be removed from rusty substrates. Clean using the IKO tech Cleaner solvent.	None	
<b>6 – Hard plastics</b>			
PVC	First sand the substrate in order to make it rough. Clean it using the IKO tech Cleaner solvent.	None	
Polyester	First sand the substrate in order to make it rough. Clean it using the IKO tech Cleaner solvent.	None	
PE and PP			Not compatible
<b>7 - Wood</b>			
Treated wood		None	Must first be treated for all outdoor applications. Chipboard panels must be water-resistant in the mass.
<b>8 - Glass</b>			
Mineral glass	Clean the substrate thoroughly.	None	

## 2.1 - Applying the primer

Activate the IKO tanetech Porous Primer: Thoroughly mix each component separately. Pour the 2 components in one after the other and mix everything together until you obtain a homogeneous mixture. It is advisable to use a mechanical mixer.

Apply the primer (IKO tanetech Porous Primer or IKO tech Non-Porous Primer) with a brush or short nap roller, using 0.1 – 0.2 L/m<sup>2</sup>. Leave the IKO tanetech Porous Primer to dry and wait until it becomes transparent and is no longer sticky (± 3 hours). Leave the IKO tech Non-Porous Primer to dry for 30 minutes.

If the IKO hybritech MS Detail coating is not applied within 2 days, repeat this treatment.

## INSULATION (OPTIONAL)

Add a vapour barrier, if one is not already present.

Fit IKO enertherm MG PIR insulation panels of the required thickness using IKO pro PU Adhesive, IKO pro Fix gun or IKO pro Sprayfast adhesive or mechanical fasteners.

Apply IKO base stick T/SA as a self-adhesive carrier membrane and remove any loose particles using a stiff brush.

## APPLYING WATERPROOFING ON DETAIL CONNECTIONS

### General:

If you wait over 2 days before applying a layer of IKO hybritech MS Detail to a treated substrate, the latter must be cleaned.

Mark out the substrate needing to be treated with adhesive masking tape, in order to obtain a good finish.

Apply a first layer of IKO hybritech MS Detail, using 1 kg/m<sup>2</sup>. Place a piece of IKO polyester Fleece 30 (made from 30 g/m<sup>2</sup> polyester) on the wet coating, press the fleece into the first layer using a dry roller and make sure that the fleece is fully saturated with IKO hybritech MS Detail. There must not be any air bubbles between the first layer and the reinforcement membrane. Make sure that you leave a 5 cm overlap on the edges of the reinforcement fleece. Immediately apply a second layer of IKO hybritech MS Detail wet on wet, using 0.7 kg/m<sup>2</sup>.

Around round roof openings (such as chimneys and air-conditioning nozzles), IKO hybritech MS Detail must not be reinforced using IKO polyester Fleece 30.

Remove the self-adhesive tape within 30 minutes of applying the product.

When working on bituminous membranes with slate chippings finish, it is possible to sprinkle slate chippings in the liquid waterproofing while it is still wet, in order to obtain a continuous optical effect.

## DETAILED TECHNICAL DRAWINGS

Please contact IKO.

## MAINTENANCE

The durability of the waterproofing can be guaranteed, provided:

- The waterproofing is not subject to stagnant water for an extended period.
- The substrates are regularly maintained according to the current regulations.
- The waterproofing is used for its initially intended purpose.

Compliance with the following maintenance instructions determines the life span of the waterproofing system.

Maintenance begins as soon as the work is accepted. It consists of regular inspections and at least one annual visit, which must be conducted before the end of autumn.

Maintenance tasks include:

- Keeping the (rain) water drainage system in a good state of repair.
- Regular removal of grass, moss and vegetation.
- Removal of fallen leaves at the end of autumn.
- Keeping the small accessories (flashings, joints) and large structures (drain profiles, plinths, gutters, etc.) in a good state.
- Repair of any cracks detected.

Advice for use:

- Do not attach anything to the treated substrate.
- Do not pour any aggressive products onto the substrate, even if they are emptied directly into the drains.
- Do not make any changes without consulting an IKO specialist.

## IKO PRODUCTS USED IN THIS SYSTEM

**IKO flexia:**

- IKO hybritech MS Detail
- IKO polyester Fleece 30
- IKO tech Non-Porous Primer
- IKO tanetech Porous Primer

**IKO roofing:**

- IKO base Stick T/SA

**IKO enertherm:**

- IKO enertherm MG

**IKO pro:**

- IKO pro Fix gun
- IKO pro PU Adhesive
- IKO pro Sprayfast

The technical information regarding the application of liquid waterproofing products supplied by IKO is provided in good faith on the basis of IKO's current know-how and experience, and assumes that these products will be used in accordance with the above-mentioned recommendations, under normal circumstances, and that these products were stored and handled in the correct manner. The above-mentioned information is only intended to inform the user about the various properties and/or recommendations and can in no way be considered as a guarantee with regard to the merchantability and suitability for a specific purpose in view of the continuously changing environmental factors, including the specific conditions at the building site, the use of different materials and substrates, etc. As a result, and with the exception of binding legal stipulations to the contrary, IKO cannot be held liable on the basis of the provided information, and any other written recommendations and/or advice. Please contact IKO if you have any doubts regarding the processing, the end use or the application of these products. Users are recommended to consult the most recent edition of the technical data sheet. A copy of this will be provided upon request or can be obtained from [www.ikoflexia.com](http://www.ikoflexia.com)