

INSTALLATION GUIDELINES

IKO HYBRITECH ROOF

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 Roof is a single-component liquid waterproofing system, which is solvent-free, odourless, isocyanate-free and based on flexible hybrid polymers. It is used for waterproofing flat, pitched and industrial roofs, whether they are accessible or non-accessible. IKO hybritech Roof is particularly recommended for waterproofing roofs with technical installations and roofs with complex shapes, both on new buildings and renovation projects.

ADVANTAGES

IKO hybritech Roof has the following advantages:

- Seamless membrane
- Easy, flame-free application
- 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

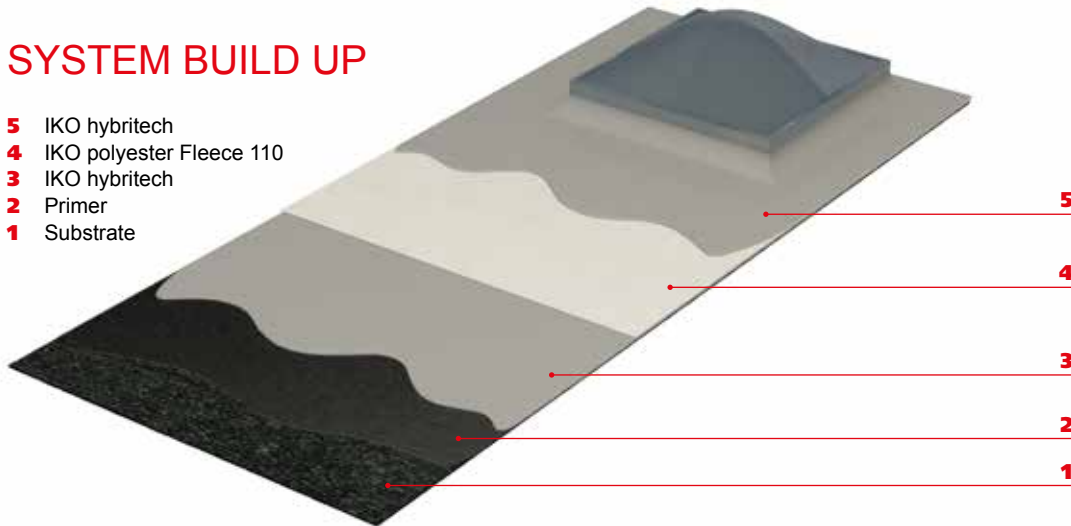
IKO assists its construction partners during all stages of the construction process, from the specifications, through the installation to the delivery of the project and after-care.

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
- 4 IKO polyester Fleece 110
- 3 IKO hybritech
- 2 Primer
- 1 Substrate



PREPARATION

1 - Working with IKO hybritech Roof

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

Before use, mix IKO hybritech gently and evenly with a wooden spatula. A mixer must not be used under any circumstances.

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

Once the tin of IKO hybritech 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 Roof can be used:

- If the air, substrate temperature and resin temperatures are between the minimum and maximum level, as defined in Table 1.
- With a relative humidity level lower than 85%.
- If it is not raining or foggy.
- On a dry surface, which is not frozen.
- On a surface 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 Roof

Product	Temperature in °C		
	Ambient	Substrate	Product
IKO hybritech	+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 hardening.

2 - Checking and preparing the substrate

IKO hybritech Roof 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. IKO hybritech can be applied on zero falls flat roofs. Cracks, blisters, expansion joints and finishes on existing surface edges must be checked and, if necessary, repaired or replaced.

Table 2 shows the compatibility of IKO hybritech Roof with several 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 Roof

Substrate	Preparation	Primer	Comments
1 - Waterproofing membranes			
APP bitumen	Remove all loose particles (talc, sand, flakes) using a stiff brush.	IKO hybritech Bitumen Primer	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.
SBS bitumen	Remove all loose particles (chipping, aggregate) using a stiff brush.	IKO hybritech Bitumen Primer	The membrane must adhere sufficiently to the substrate. Any localised cracks and blisters must first be repaired.
PVC	Clean the membrane with 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		IKO tech Non-Porous Primer	The membrane must adhere sufficiently to the substrate. Any cracks and blisters must first be repaired.
PIB			Not compatible.
ECB			Not compatible.
PE			Not compatible.

Table 2: Compatibility of IKO hybritech Roof

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

2.1 - Applying the primer

Apply the primer (IKO tech Non-Porous Primer or IKO hybritech Bitumen Primer) with a brush, using 0.1 – 0.2 L/m². Allow the primer to dry for 30 minutes.

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

INSULATION (OPTIONAL)

Add a vapour barrier, if there is not already one 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 sand particles using a stiff brush.

APPLYING THE WATERPROOFING

General:

If you wait more than 2 days before applying a layer of IKO hybritech to a treated substrate, the substrate must be cleaned.

1. Detail connections

Apply a first layer of IKO hybritech using 1.5 kg/m². Place a piece of reinforcement fleece (IKO polyester Fleece 110 made from 110 g/m² 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. There must not be any air bubbles between the coating and the reinforcement fleece. Make sure that you leave a 5 cm overlap on the edges of the reinforcement fleece.

Immediately apply a second layer of IKO hybritech using 1 kg/m² according to the wet on wet method.

For high details and upstands, it is advisable to replace IKO hybritech with the viscous resin IKO hybritech Detail.

2. Main roof section

Apply a first layer of IKO hybritech using 1.5 kg/m². Roll a reinforcement fleece (IKO polyester Fleece 110 made from 110 g/m² 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. There must not be any air bubbles between the coating and the reinforcement fleece. Make sure that you leave a 5 cm overlap on the edges of the reinforcement fleece.

Immediately apply a second layer of IKO hybritech using 1 kg/m² according to the wet on wet method.

DETAILED TECHNICAL DRAWINGS

Please contact IKO.

MAINTENANCE

The durability of the waterproofing can be guaranteed, provided:

- The waterproofing is not subject to ponding water for an extended period.
- The surfaces 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 surface.
- Do not pour any aggressive products onto the surface, 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
 - IKO hybritech Bitumen Primer
 - IKO hybritech Detail
 - IKO polyester Fleece 110
 - IKO tech Non-Porous Primer
- IKO roofing:**
- IKO base Stick T/SA
- IKO enertherm:**
- IKO enertherm MG
- IKO pro:**
- IKO pro PU Adhesive / Fix gun / 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