INSTALLATION GUIDELINES

# MECHANICALLY FASTENED TWO-LAYER ROOF SYSTEM

**The description below covers the installation of an IKO Circular roof system, in a mechanically fastened two-layer roof system.**

IKO circular roof systems should consist of the products described in these guidelines, including the specified fasteners and fastening method. The systems must always be fastened in accordance with the applicable regulations (e.g. for the Netherlands, in accordance with NEN-EN 1991-1-4+A1+C2:2011/NB:2011, NEN 6707, SBR 465.00 and NPR 6708:2013. For general handling guidelines, please refer to the *Vakrichtlijn gesloten dak-systemen* [Trade guidelines for closed roofing systems], 2018 version).

IKO circular roof systems aim to be as easy as possible to dismantle at the end of their service life and can be taken back for recycling by IKO subject to the conditions described in the take-back certificate. To that end, the systems should be as easy to disassemble as possible. Only where it is strictly necessary for water and airtightness may the roofing be connected to elements (skylights, detailing, etc.) in ways which do not enable the system to be disassembled with currently known techniques.

Cutting waste from all IKO circular roofing membranes in these systems should be collected separately for recycling by IKO.

These guidelines have been prepared to the best of our ability, taking into account current technical knowledge and experience, with no guarantees concerning hidden elements and without taking into account technologies which have not yet been adequately tested.

# MECHANICALLY FASTENED TWO-LAYER ROOF SYSTEM

## DAMP-PROOF LAYER:

The substrate must be clean and dry.

An IKO base P3 T/F ATELIA 10.0 roofing membrane is to be applied as a damp-proof layer, laid loose.

Remove the tapes and lay the roofing membrane loose in a half-brick bond with a minimum distance between crosswise overlaps of ≥ 2 m with a lengthwise overlap of at least 80mm, crosswise overlap 100mm. The roofing membrane is applied loose. Make the overlaps and joins airtight using the fire or hot air method.

To achieve a good seam joint, a bitumen bead of ≥ 5 mm should flow out at the overlap. Before final waterproofing, temporary ballast is required.

## INSULATION:

IKO Enertherm ATELIA, fixed mechanically, is used as insulation.

The boards should be protected from weather and damage for optimum performance.

IKO Enertherm ATELIA insulation boards are carefully packed using plastic film, but we recommend also protecting the insulation from sunlight and rainwater during long-term storage.

IKO Enertherm ATELIA comes in size 1200 x 1000 mm

When installing IKO Enertherm ATELIA insulation on a discontinuous support, the maximum span and cantilever must be taken into account.

IKO Enertherm ATELIA insulation boards can be installed in half-brick bond or any appropriate staggered configuration. The end joints between adjacent insulation boards should always be staggered by at least 20 centimetres. If multiple layers of insulation are used, the joints between the layers of insulation must be staggered.

Always install the insulation boards in a continuous line; gaps at join details should be sealed with PU foam after installation. Cut away the excess foam after curing. Apply filler pieces smaller than 300 mm only in the central zone of the roof.

On a profiled steel roof, longitudinal seams should be placed at right angles to the fluting.

Fasten IKO Enertherm ATELIA mechanically onto the structural substrate using EUROFAST PP screw/grommet combination, with 4 fasteners per sheet.

## ROOFING, FLAT:

As underlay an IKO base 360P60 ATELIA or IKO base P3 SBS T/F ATELIA is applied, mechanically fastened using EUROFAST PP screw/grommet combination in accordance with the applicable regulations (e.g. for the Netherlands, NEN-EN 1991-1-4+A1+C2:2011/NB:2011, NEN 6707, SBR 465.00 and NPR 6708:2013). Overlap lengthwise 80 and crosswise 100mm wide for IKO base 360P60 ATELIA, IKO base P3 SBS T/F ATELIA lengthwise overlap 120mm, crosswise overlap 150mm to provide temporary waterproofing for the underlay. The overlaps and joins on IKO base P3 SBS T/F ATELIA can be waterproofed using hot air or blowtorch.

As a top coat, IKO Carrara is applied using the blowtorch method.

Always apply IKO Carrara using a core. IKO Carrara must always be fully torched, forming an even bitumen bead of approx. 5mm along the overlap. Do not torch overlaps separately. Minimum lengthwise overlap is 80 mm, minimum end overlap is 100 mm in a multilayer system.

## ROOFING, UPSTANDS AND DETAILS:

Roof edges, upstands and details should preferably be fully insulated with IKO enertherm ATELIA insulation boards of minimum thickness, fastened using EUROFAST PP screw/grommet combinations.

The first layer consists of IKO base P3 SBS T/F ATELIA. Fasten these mechanically to the substructure using EUROFAST PP screw/grommet combination fasteners.

Overlaps and joins should be waterproofed using blowtorch or hot air methods.

Apply finishing strip of sufficient width, type IKO Carrara type suitable for the blowtorch method.

In the Netherlands, the finishing strip must be applied flameproof in situations in accordance with the requirements of NEN6050. For this purpose, apply IKO Carrara TECNO SN, mechanically fastened in the overlap, using hot air for overlaps and joins.

If it is impossible to insulate roof edges, upstands and details for technical reasons, please contact your IKO contact for technical advice.

## INCORPORATING SLABS, VENTS, DRAINS, PENETRATIONS, ETC:

For drains, vents and other penetrations, IKO powergum drain prefabricated adhesive boards should preferably be used, applied in accordance with instructions.

**ROOFING I LIQUID WATERPROOFING I INSULATION**

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