

Roof underlay of water repellent membrane with self-adhesive overlaps

Pre-conditions

Preparation

Self-inspection

Execution



This **work instruction** is designed for use in detailed planning and preparation of work on construction projects. With thorough planning high levels of personal safety and optimal work apportionment can be achieved at the same time as the work can be organized efficiently and cost effectively.

Product Description

The roof underlay is of a new type of water resistant membrane which is nailed to a firm base. Used as water diverting membrane under external roof covers, such as brick and concrete tiles and corrugated sheeting. Intended to be used as an underlay on roofs with at least a 14 ° incline.

Flexi Light is an ageing-resilient underlay made from a mineral fiber felt impregnated and coated with SBS modified bitumen. The lower and upper side is covered with a blanket of polypropylene.

Product Facts

This membrane - Flexi Light - has a weight of only 700 g/m², which means that the format has been increased to 1.2 x 33 m This allows one to save time during installation due to fewer number of joints. The weight per roll is 28 kg.

Water vapor resistivity is about 3000×10^{-3} s/m.

Compared with traditional underlay products with the format 0.7 x 15 m, one can cut installation time dramatically without working faster! Overall, there is less to carry up onto the roof, one roll instead of 4 because each roll contains 40 m².

Installation Instructions

The edge is provided with a release sheet which is removed in connection with laying to obtain an adhesive bandage. In cold weather, the overlays shall be heated to activate the adhesive surfaces.

Work activity: Roof coverings

Work activity & Problem	P	C	Risk= P*C	Action
Fall from roof - Fall injuries	3	150	450	Protection Harness
Crane work with membrane rolls	30	5	150	Education in crane directing/strapping
Falling material/crushing injuries	10	15	150	Helmet compulsory
Cluttered workplace = Twist/fall injuries	10	15	150	Regular tidying

Probability = P	P = 0,1	Assessment of probability	Very unlikely	(<1 times/10 years)	Assessment of consequences	C=0,5	Trifle
Consequence = C	P = 1	Unlikely	(1 times/10 years)	C=1	Tiny	(1 - 2 days sick leave)	
Risk = P * C	P = 3	Low probability	(1 times/3 years)	C=5	Small	(3 - 7 days sick leave)	
	P = 10	Relative probability	(1 times/year)	C=15	Tactile	(8 - 29 - " -)	
	P = 30	Probable	(1 times/month)	C=70	Severe	(30-299 - " -)	
				C=500	Very severe	(>300 - " -)	

Text and images from the Working Environment Authority's brochure Safer Construction

Personal Protective Equipment § 71

Safety helmet and protective footwear should be used unless this is clearly unnecessary. Other personal protective equipment such as eye protection, hearing protection and gloves should be worn when required.

Working safer on roofs § 87-92

When engaged in roof work it is usual for a guardrail or equivalent protection to be provided. Railings can sit on the eaves or in a position that ends just below the eaves.

Remember that it may need extra strong railings to stop a person who comes at speed down a steep roof.



Guardrail at roofing works



Scaffolding at the roof and fascia work

Check the roof under-surface

Surface

When relaying old roofs, the old underlay must be dry and sound. Blisters should be cut open and the existing underlay secured with nails.

Roof with old tar paper is pretty rare nowadays. One recognizes the tar paper by its characteristic smell of tar.

If in doubt as to whether the existing underlay is good enough it is recommended then the old underlay should be removed and a new underlay laid from scratch with underlay membrane nailed to the panel. This process provides an opportunity to verify that the underlying structure is sound.

Note that the surface of wood panels should have a thickness of, at least, 20 mm. See comments under HSD.1331.

Surface Coverage

Should an existing roof be re-laid, it is often the case that the old underlay can serve as a basis for the new membrane.

Adjust or cut away wrinkles or bubbles.

Preparation 2(3)

Tools and materials

Tools:

- Stapling/Nail Gun for roofing fabric with compressor – Stapler
- Hammer
- Knife for cutting roofing fabric
- Pincers
- Saw
- Spatula
- Screeding brush
- Lifeline

Materials:

- Roof underlay
- Asphalt or special glue
- Galvanized nails size 20x28 22 mm
- Rubber corner strip
- Footplate



Galvanized roofing paper nails nail in rolls for use in the nail gun.

Deliveries - logistics

Storage depots

Rolls of roofing membrane are heavy - 28 kg/pce and should be unloaded from the delivery vehicle as close as possible to the point of installation.

Avoid storage locations which entail relocation due to the material being in the way of other activities.

Residues have the ability to blow around when working at height.

Plan “waste management”!



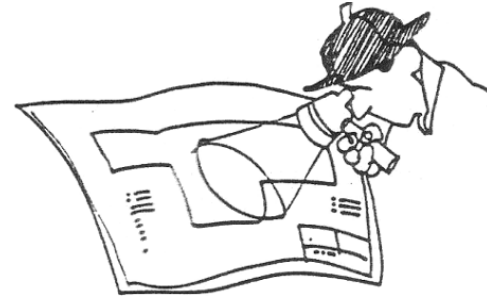
Self-inspection 1(2)
Template & instructions

No	Check	Method or equipment	Frequency	Result	Date Signature	Deviation/Remedy Approval/Non-A
1	Membrane of the specified quality					
2	Nailing the exposed parts					
3	Folding up against obstacles					
4						
5						
6						
7						
8						
9						
10						
11						

Key points

Quality criteria for the project and the product

- Study Drawings, Specifications and Inspection planning
- Think through the alternative **methods of production** and handling of materials, tools etc. that can meet the requirements



Pay particular attention to

- surface must be clean and prepared in accordance with manufacturer's instructions
- number and c/c of nailing shall following Specification and the manufacturer's instructions
- be careful at abutments and penetrations

Laying the roof membrane

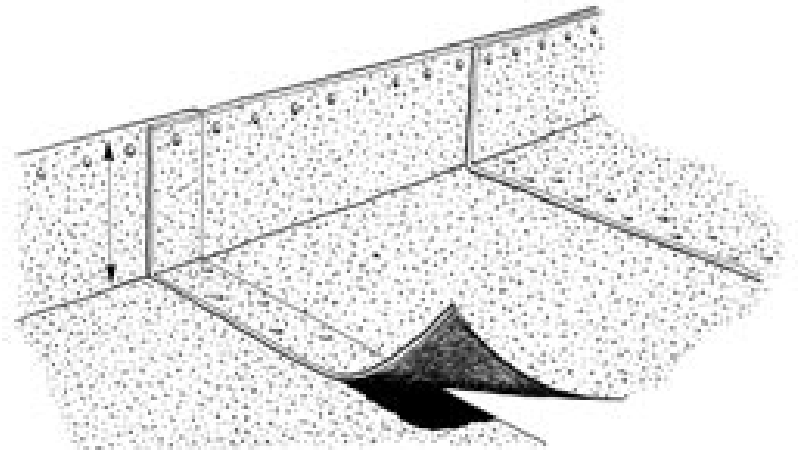
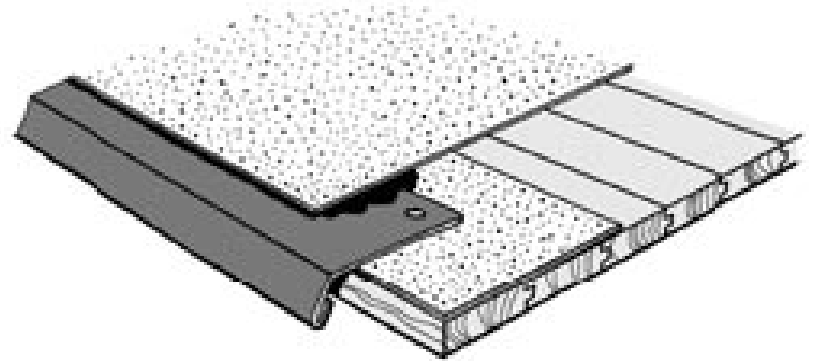
Nail a 25 cm wide strip of underlay felt along the eaves. It shall provide additional protection under the minimum 15 cm wide eaves-plate to be nailed to the wooden panel with maximum nail c/c of 15 cm.

Pictures from Icopal's installation instructions

Roll out a length along the eaves so that it covers half the base plate. You attach it with some felt nail at the top and paste it to the base plate and the earlier mounted eaves strip. The eaves-plate must be cleaned and brushed with primer.

The following lengths are also laid perpendicular to the roof incline with an 8 cm overlap in relation to the length below. The overlap is glued or, where applicable, the protective film on the self-adhesive border is removed. Nail through both layers of the overlay.

Fold a length over the ridge so that it goes down on both sides. Glue and nail at the overlap through the layer below.



Laying of the roof underlay

A new roll is lifted in to place.

The protective paper is removed and a length with adhesive edge fitted.

The canvas is 1,20 m wide so there will be fewer joints.



The membrane is nailed into place through both layers.

The membrane is cut and secured to abutting vertical surfaces.

