Installation instructions for low-slope roofing

Preparatory works (mineral wool, reinforced concrete or construction board)
The substrate must be clean and dry. Any debris, pebbles and similar loose materials are brushed off. A reinforced concrete substrate is primed by applying BIL 20/85 Bitumen Primer that contains binder agents.

Preparatory works (existing bitumen roofing)
Any existing heavy surface protection (e.g. loose-fill gravel) is removed. The roof surface is cleaned by brushing and, where necessary, by high-pressure washer. Any vapour pouches and air pockets are cut open and re-welded by liquefied gas torch.

Installation work
The installation work is always started at the lowest part of the roof. The order of installation on the roof is as follows: Roof drain areas, panes, valleys, ridges and, finally, the eaves, upturns, outlets and similar items.

The underlayer membrane is attached onto the existing bitumen roofing, the reinforced concrete or construction board substrate by point fastening. When mounting directly on mineral wool, the underlayer membrane is fastened onto the substrate throughout the entire area. When point fastening is used, the membrane is attached onto the substrate for a coverage area of approximately 20–25%. The maximum attachment area covered by any individual fastening point may not exceed 300 x 300 mm. The joints are fastened and sealed watertight for their entire length.

The top membrane is attached onto the underlay throughout the area.

The side laps joints of the membrane must overlap one another by 100 mm and end laps joints by 150 mm. Overlapping joints must always be made along the roof slope in downward direction. All the membrane layers must be installed in parallel direction. The joints of such membranes must not overlap one another. The adjacent membranes must be staggered at least by 500 mm. For upturns and edges separate membrane strips must always be used.

Attaching membrane by hot bitumen (pour and roll)
1. The membrane is rolled out and aligned into position, after which it is partially rolled back and attaching the membrane onto the substrate is started.
2. Bitumen is heated up in a bitumen boiler.
3. Hot bitumen is poured from a bitumen pouring can in front of the membrane roll while at the same time unwinding the membrane forward and pressing it firmly onto the substrate.
4. When gluing the membrane onto the surface, make sure that no air pockets remain between the membrane and the substrate.
5. In order to accomplish a clean seam, diluted glue is brushed onto the now installed membrane's seam so as to prevent any bitumen bursts out of the seam from bonding, and such bursts can easily be removed by cut knife once the bitumen has solidified.

Attaching membrane by torch-on application (not recommended for installation onto wooden substrate)
1. The membrane is rolled out and aligned into position, after which it is partially rolled back and attaching the membrane onto the substrate is started.
2. Apply heat to the adhesive bitumen on the underside of the membrane by a gas torch. There is no need to remove the protective plastic cover. When heated the adhesive bitumen melts evenly across the entire width of the membrane sheet, thus ensuring that the membrane fastens properly onto the substrate.
3. Do not apply too much heat to the membrane so as to prevent causing damage to the support layer of the membrane.
4. The adhesive bitumen should spread approximately 10 mm beyond the outer edge of the joint.