

REFURBISHMENT OF NON-WALKABLE FLAT ROOF

Preliminary work

- Carefully clean the existing cover and remove all dirt.
- If there are any defects on the cover, like cracks, blisters, folds etc.: remove the blisters and regulate the surface using a safety or hot air burner and a round tip trowel; cut any folds that are higher than
- 10 mm and eliminate any dirt, taking care to weld the strips left after cutting the folds by heat or hot air thermal-tempering.
- Check the fastenings, the sturdiness and suitability of the surrounding details and, if necessary, carry out repairs.
- Dismantle the skylights, check the verticals to confirm fastening and the sturdiness and suitability, and if necessary, repair any damaged parts.
- Perimeter cut of verticals on the old protective cover.

Para. 1

Cement and masonry support and existing sloping screed support.

Para. 2

Old, pre-existing waterproof protective cover.

Para. 3

Insulating system obtained with the continuous coupling of a specific elasto-plastomer polymer bitumen membrane with polyurethane foam panels (*NORDPOL PUR*) or EPS 150 sintered XPS (*NORDPOL EPS*) or self-extinguishing extruded XPS (*NORDPOL XPS*).

The elastoplastomer polymer bitumen membrane (BPP), applied to the panel, will be smooth with polyester non-woven fabric reinforcement (POL) or layer of strengthened surfacing mat (VV).

The geometric conditions and trend of local gradients, with one of the following frameworks: staggered longitudinal joints, staggered transversal joints, angular joints and with joints which are, in any case, properly placed alongside each other and well levelled.

The panel should be installed on the vapour screen or vapour barrier by carefully positioning each panel in juxtaposition with the adjacent panels.

The thickness of the insulating system should comply with current legal standards for energy saving in buildings and should be of a suitable size to avoid a dew point below the vapour barrier.

Para. 4

Mechanical fitting of the insulation system made up of anti-corrosion treated round headed nails (length of nail equal to thickness of the insulating system increased by 3 cm, in order to penetrate the cement by at least 2,5 cm), diameter of the round head 75 mm, nail butt position in the round head lowered to prevent puncturing of the waterproof membrane following concentrated or diffused compression of the insulated panel; fixing density:

- central zones fittings/m²
- perimeter zones fittings/m²
- corner zones fittings/m²

Para. 5

4 mm thick NB polymer modified bitumen underlayer membrane, (reinforced with spunbound polyester non-woven fabric, reinforced composite), torched on in complete adherence and carefully welded to the overlap (minimum overlapping: 80 mm side and 150 mm butt - actual minimum adhesion: 60 mm side and 100 mm butt - for butt joints, a maximum overlapping of three canvases will be allowed) and in correspondence with all the perimeter details.

Para. 6

Supply and installation, for heat or hot air canvas, in correspondence with the vertical laps, of a 25 cm high strip of 4 mm thick NB bitumen membrane (see para. 5).

Para. 7

NB polymer modified bitumen mineral cap sheet membrane, (reinforced with spunbound polyester non-woven fabric, reinforced composite, self-protecting reinforcement with chips of natural slate, installed in sufficient quantity and in the same direction as the basic membrane but with staggered longitudinal joints (that is, laying the canvases of the 2nd layer straddling the 1st one), completely adhering and carefully welded on the overlaps (minimum overlapping: 80 mm side and 150 mm butt - minimum actual adhesion: 60 mm side and 100 mm butt - for butt joints, a maximum overlapping of three canvases will be allowed) and in correspondence with all the perimeter details

Para. 8

Doubling corner element with membrane, with specifications as described above, to waterproof the vertical one that will overlap the horizontal one by at least 10 cm, and welded for thermal-tempering with specific safety or hot air burner.

Para. 9

Protection flashing of the membrane peak thickness mm, length cm, fixed using 1 every cm.

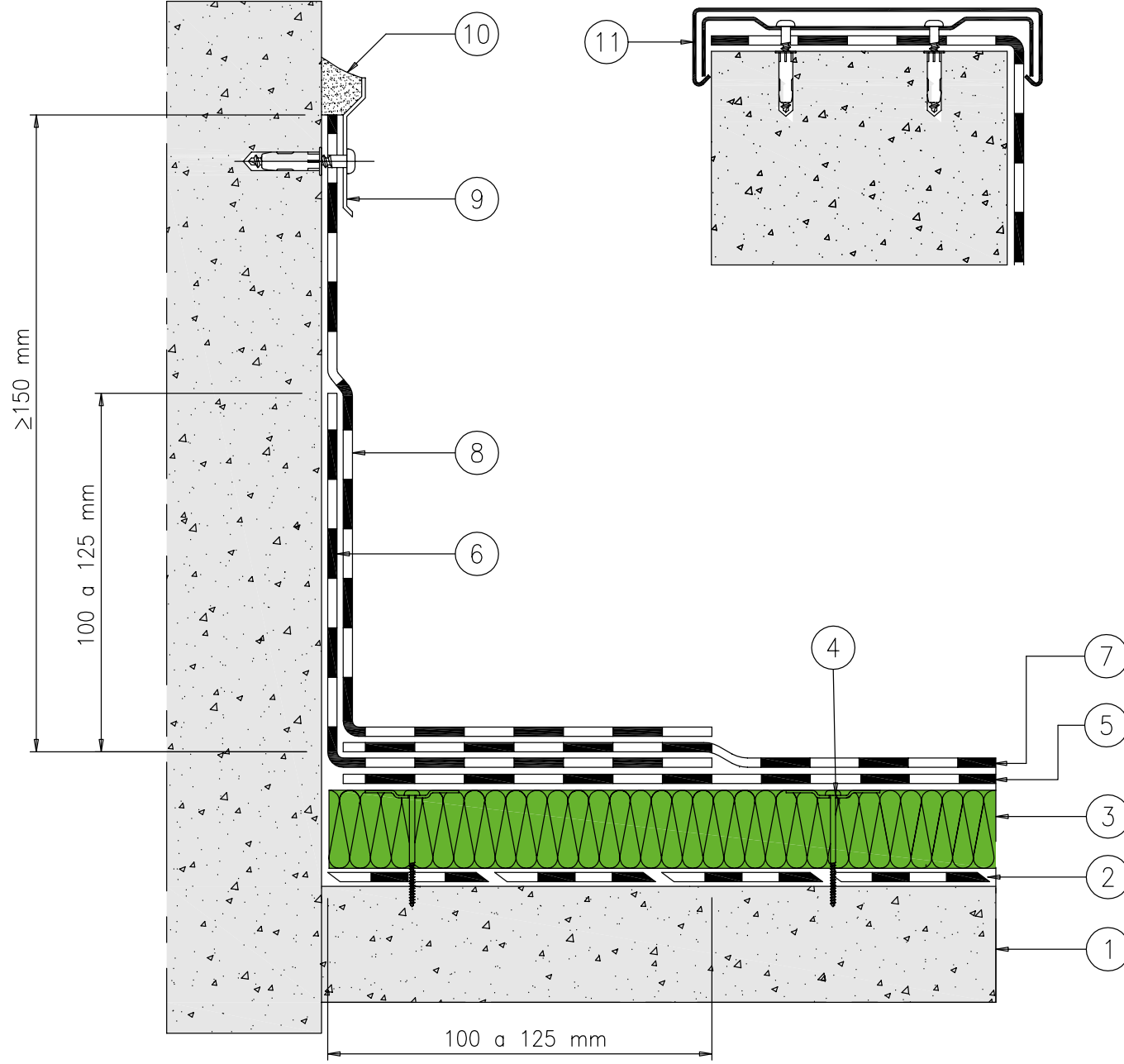
Para. 10

Upper sealing with bituminous mastic.

Para. 11

Alternatively, flashing or wall coping cover with a thickness of mm, length cm, dripstone on either side, gradient towards the cover, fixed using

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1. Support
2. Old membrane - removal of the vertical
3. Nordpol heat insulating element
4. Mechanical fitting
5. NB polymer modified bitumen underlayer membrane
6. NB bitumen membrane corner strengthening strip
7. NB polymer modified mineral bitumen cap sheet men
8. Doubling corner made with NB mineral bitumen membrane cap sheet
9. Metallic flashing with mechanic fitting
10. Sealing

Alternatively:

11. Wall coping cover