



RC10 METHOD OF STATEMENT

ROOF THERMAL AND MOISTURE PROTECTION

(1) ROOFING CONFERENCE

Prior to roofing installation, a meeting shall be held at the job site to review the material selections, installation procedures, and co-ordination of work with other trades.

Meeting shall include consultant, contractor, roofing subcontractor and other subcontractors whose work requires co-ordination with the roofing and waterproofing works.

(2) ROOF PREPARATION

Deck areas scheduled to receive the roofing system shall be inspected to ensure that slopes and all details, such as drains, expansion joints, penetrations...etc. are made according to the standards required, prior to the application of the membrane system. Provisions shall be made to ensure that work of preceding trades shall be completed satisfactorily.

Surfaces shall be clean and free from water, oil, grease, debris, curing compounds and other harmful chemicals. Roof shall be brushed thoroughly to ensure that it is free from dust and sticking substances.

(3) INSTALLATION

(A) CASTING LIGHTWEIGHT CONCRETE

Lightweight concrete shall be produced directly on the job site filling all surface irregularities and forming a minimum positive drainage slope to falls of 1 %.

Surfaces shall be finished to provide the required final slopes, Concrete will be allowed to cure for 4 days, or as recommended by the foaming agent manufacturer before proceeding with following layers.

According to the membrane application method, a layer of leveling screed (2cm) shall be required; all up-stands shall be provided with (50x50 mm) sand/cement cant strip.

(B) PRIMER (OPTIONAL)

Surfaces to receive primer shall be clean and free from debris. Surfaces shall be coated uniformly with one coat of primer at the rate advised by the manufacturer (if required), and left to dry totally before applying the membrane layers.

(C) ROOFING MEMBRANE

- Membrane shall be installed according to manufacturer's recommendations, work shall start at the lowest point of the roof and membrane shall be laid perpendicular to roof slope, roofing membrane shall be applied so that the flow of water is over and not against the laps.
- Side laps shall be 8 - 12 cm; end laps shall be 12 - 15 cm.

- Using a torch flame the operation is carried out by gently pressing the edges so that some of the melted bitumen mass flows out.
- Membrane base flashing (skirts) shall be applied fully bonded to the perimeters, cant strips and vertical surfaces.
- Application of membrane will be in accordance with approved shop drawings.

(D) FLASHING

Cants, curbs and all covered up-stands must be primed before applying the modified bitumen membrane flashing. The flashing membrane must always be fully bonded

It shall cover cant strip and extend vertically up to min. 10 cm above the finished roof level.

The flashing membrane shall be terminated into a 20 x 20 mm groove that shall be pointed with bitumen mastic.

When the flashing membrane is exposed (a self-protected mineral finished membrane), a metal flashing shall be installed over the top edge, fastened with screws at intervals not more than 30 cm, and pointed with poly-sulphide sealant (or according to drawings).

(E) INSULATION

After applying a separation layer of PE 150microns sheet, and applying a protective screed layer with the specified thickness, Insulation boards shall be loose laid in a staggered manner, and chamfered at 45 degrees at the corner cants, also chamfer slightly at the drains perimeter in order to help form the depression collecting rain water.

(F) BALLAST

Ballast shall be laid as soon as possible after installation of insulation boards. Either for tiles or gravel ballasted systems, a filter fabric of geo-textile sheets, weight 120 – 140 gm/m², with 150 mm overlaps, shall be laid on top of boards prior to ballast application.

(G) DETAILS

Details on the roofs, such as DRAINS, EXPANSION JOINTS, DUCT/VENTS PENETRATIONS.... ETC., shall be applied strictly according to the manufacturer Standard Details and after being approved by the consultant.

(4) QUALITY CONTROL

Roofing contractor shall always ensure the compliance of roofing with contract requirements.

The contractor representative shall be a qualified engineer registered at the *Egyptian Syndicate of Engineers* and having experience in this field, and shall be responsible for the execution of work specified in this section.

Any work, that does not comply with contract specifications, shall be removed and corrected at once.

(5) TEST

Prior to laying subsequent system layers, waterproofing shall be tested for water tightness. Drains shall be temporarily plugged and Roofs shall be flooded with a minimum of 5 cm of water at the highest points, but never above the vertical waterproofed areas. Water shall be permitted to stand for 24-48 hours. Leaks shall be located (if any) and the point of the roof developing leakage shall be repaired and retested.