Since 1985

انسـورواب
Insuwrap

Proposed Scope of work for Compartment System

1. Scope of Work:

1.1 Installation (Horizontal area)

A. Blinding concrete surface should be smooth, clean & free from sharp projections.

B. A protection layer non-woven geotextile Alyaf 500g/m² must be used to receive PVC membrane.

C. After the dryness of the primer coats applied before the geotextile, apply (PVC 1500 TNL) membranes loose laid for horizontal areas with 50mm overlap by using hot air welding technique. The welding should be carried in two runs (internal joint weld & final joint welding) and make sure to melt the external edge and obtain material bleeding. The application of PVC membrane should be carried in the longitudinal direction of the underpass.

D. Supply & weld PVC water stop (250 mm. wide) on all expansion joints and construction joints provided that the spacing between every water stop strip and the next one should not go more than 10 m. The application of PVC waterstop is carried perpendicular (Transvese direction of the underpass) and continuous welding from both sides of water stop with PVC membrane .

E. Apply horizontally a protection layer non-woven geotextile Alyaf 500g/m² with 100mm overlap (adhered partially) over the entire horizontal PVC membrane keeping the water stop exposed to receive structural concrete.

F. Cover the PVC membrane and the geotextile with permanent overlying construction as soon as possible. This is made by applying concrete screed with fine aggregate not exceeding 3/8 inch aggregate size; and make sure that concrete pouring to be away from geotextile overlaps and concrete spreading must only be done by wooden tools keeping the water stop expopsed.

G. Lay steel reinforcement and concrete for the raft foundation as specified.

1.2 Installation (Vertical area)

A. Supply & weld PVC water stop (250 mm. wide) on vertical wooden shuttering where expansion joints and construction joints (kickers) provided that the spacing between every water stop strip and the next one should not go more than 10 m. The application of PVC waterstop is carried perpendicular (Transvese direction of the underpass) and continuous welding from both sides of water stop with PVC membrane.

B. Concreting of vertical retaining wall keeping the surfaces smooth, clean & free from sharp projections.

C. A protection layer non-woven geotextile Alyaf 500g/m² must be used on the vertical concrete surface to receive PVC membrane with 100mm overlap (Water stop should be exposed to receive PVC membrane by hot air welding).

D. Apply (PVC 1500 TNL) membrane vertically by mechanical fixing using PVC coated galvanized metal strips or aluminum strips (30mm width) fixed vertically to the walls by fasteners and receiving PVC membrane by using hot air welding technique over the strips. PVC rolls should be joined vertically with 50mm overlaps using hot air welding technique. Those strips are also applied in transverse direction every 3 m along the height of the underpass. PVC membrane should also be welded on waterstop.

E. Apply vertically a protection layer non-woven geotextile Alyaf 500g/m² over the entire vertical PVC membrane with 100mm overlap.

F. Apply Polyethylene foam protection board 25mm adhered over the vertical protection layer non-woven geotextile Alyaf 500g/m² before backfilling.

G. Pipes, cables, etc. where passing through sheets, must be completely watertight using pre-formed collars fully bonded/sealed to both pipes and sheets. Dressing can be made at site using the same PVC liner.

H. Termination of PVC membrane should be done by using water stop bars or (40 x 10mm) PVC coated strips fixed at the upper end of the underpass with one bend to be filled with poly urethane sealant in case of PVC coated strips.

2. TEST METHOD:

To check welding quality at the overlaps, Visual test, Needle test or Vacuum test can be used when necessary.

***NOTE**: Insuwrap PVC waterproofing membranes will be welded horizontally & vertically on waterstops along the expansion joints as per attached drawings*.