

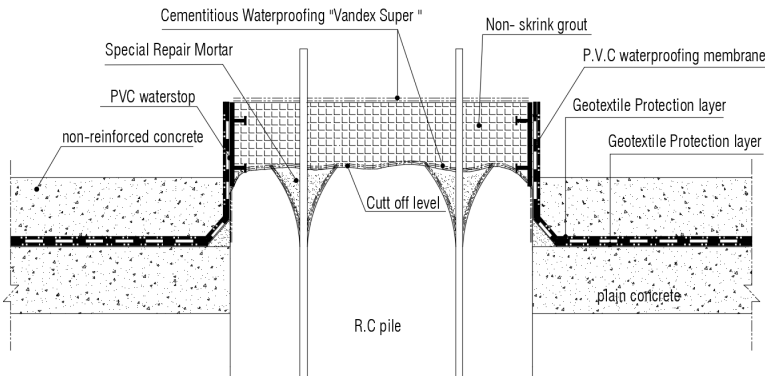


SODECO S.A.E
SPECIALTIES

Civil Engineering Structures

LD-06 & LD-08 TOWERS-NEW ALAMEIN, Egypt

Project Name: LD-06 & LD-08 Towers
Scope: Raft & Retaining Walls Waterproofing + Pile Heads Treatment
City: New Alamein
Country: Egypt
Main Contractor: REDCON Construction (LD-06)
 Arab Contractors (LD-08)
Applicator: Sodeco Specialties S.A.E
Construction Period: 2018 - 2022
Owner: New Urban Communities Authority
Consultant: ECG



Pile Heads Insulation Works

- Chipped off excess length of piles to reach the required level.
- Chipped off irregularities and sharp edges of pile head surface.
- Chisel out a cone shape around each steel bar and fill it with special repairing mortar with "SBR Latex".
- Apply a layer of waterproofing works "Vandex Super" on the top of the pile.
- Install non-shrink grout, should be applied on top of pile head for leveling purpose using Non-Shrink Grout.
- Apply P.V.C waterstop cut to measure around the pile perimeter before installing of the non-shrink grout to be welded with the PVC membrane later.

Technical Information

Products Used: *Vandex Super*
Non-Shrink Grout
PVC membrane 1.5mm thick
Geotextile

Areas Treated: LD-06: 41,000 m²
 LD-08: 35,000 m²



Horizontal Surface:

- Bedding concrete layer of plain concrete to be executed on the horizontal surface plain concrete surface should be smooth and leveled to receive the W.P layers.
- Install a layer of thermal bonded geotextile on the horizontal surface.
- The P.V.C membrane shall be installed loosely laid on top of the above areas of geotextile and welded by hot air and double wedge machine with the proper overlap as required by manufacture.
- The P.V.C membrane shall be installed using double automatic welding equipment and a hot air with an overlap of 50 mm for manual hot air welding machine and 80mm for double welding machine.
- P.V.C. external waterstop profile.
- Waterstop profile will be welded to P.V.C membrane by hot air to divide the horizontal area to compartments.
- P.V.C. external waterstop profile will be welded to P.V.C membrane at all construction joints
- The above PVC waterstop profile shall be fixed at borders of compartment in both directions of horizontal areas to divide the surface into compartments of maximum 120~150m².
- 4 PVC injection pipes with a P.V.C thick base to be welded with the P.V.C membrane in each compartment for future injection purpose.
- An upper protection layer of thermal bonded geotextile shall be applied on top of P.V.C. membrane
- For horizontal surface, a protection layer of non-reinforced concrete should be applied on top of the geotextile layer.



Vertical Surface:

- Install a layer of thermal bonded geotextile should be fixed mechanically on the vertical surface by means of fasteners.
- The P.V.C shall be installed using welding equipment and a hot air with an overlap of 50 mm for manual hot air welding machine.
- The P.V.C membrane should be applied vertically by weld with the P.V.C parts located with at fastener.
- An upper protection layer of thermal bonded geotextile shall be applied on top of P.V.C. membrane with an overlap of 10 cm. For vertical surface, a protection layer of Protection Board should be applied on top of the geotextile layer.

