

Method of Statement for
INSUWRAP PVC Waterproofing System for Artificial Lakes & Ponds

1. General:

Insuwrap offers waterproofing membranes for lining lakes and ponds to prevent water seepage. Installation is economical due to the minimum civil works and site preparations required to install the Liner. One of the most economical factors is that no concrete layer is required. PVC liner can be used directly on the smooth cushion surfaces such as fine sand, smooth finish sub base, etc.

The excellent properties of Insuwrap waterproofing membranes are particularly welcome in areas where there is a risk of subsidence or where the soil is very light and permeable to water.

The membrane has a high elongation at breaking point, high tensile strength and great resistance to surface pressure.

Another important advantage, is quick and simple installation. The pond can be filled with water immediately.

2. Site Preparation:

After the basin is excavated, the surface of the excavated area should be free from sharp objects. If the surface consists of coarse particles, a layer of fine sand should be spread on top.

Water inlet and outlet pipes will be provided. The membrane is joined to inlet and outlet pipes by means of flanges to ensure a tight seal.

3. Scope of work:

- 3.1 The geotextile underlay shall be installed on top of compacted smooth sub base.
- 3.2 The liner 1500 L, LR, LR-UV, 1.50mm thick, Reinforced & Ultra Violet resistant, shall be installed over the underlay immediately. The liner shall be temporarily secured in place with rubber tyres or other soft objects capable of preventing wind damage.

- 3.3 The edges of the liner shall be located a minimum of 500mm above the water level.

For the upper fastening of the membrane, a circular trench should be excavated around the basin (about 40 cm width and 30 mm depth). INSUWRAP membranes are installed covering the bottom of the trench and applied towards the basin.

After the membrane is placed in position inside the circular trench the trench is filled with the excavated soil.

The membrane could be rolled out on the prepared surface, aligned and cut to the required length.

It is possible to prefabricate waterproofing liners from INSUWRAP membranes if the shape of the surface of the basin is certain and known.

3.4 **Dressing to pipes and drains:**

Apply contact adhesive to pipes outlets and around the drains and to the Insuwrap PVC waterproofing liner and then contact liner to the pipe and drain. Clamping rings shall be placed at the top end of the liner, sealant is then applied all around the pipe where the PVC ends.

4. **Flood Test :**

Flood test consists of maintaining water over the entire surface, for a period of 24 hours in case of any leakage the source of leakage will be determined, water will be drained and repair works will be carried out in the affected area. As per requirements, water test will be repeated.