METHOD STATEMENT

iSTIK 400R

POLYPROPYLENE FLEECE SURFACED WATERPROOFING AND PROTECTION MEMBRANE

INNOBIT INDUSTRIES LLC

PO No:3343, New Industrial Area,
Umm Al Thoub, Umm Al-Quwain, UAE

info@innobit.me

+971 6 706 9111

www.innobit.me

INNOBIT™

SECTION I: Tools & General Instructions

A. Tools & Equipment

i. PPE: Fire resistant gloves, safety glasses, overalls.

ii. Slow speed drill machine with less than 500 rpm with a suitable spiral mixer

iii. Wooden press & lap rollers

iv. Brush /roller

v. Steel scrapper

vi. Cotton waste

vii. Solvent cleaner

viii. Measuring tape

ix. Cutting knife, scissors

B. Material Storage

i. Membrane rolls should always be kept in upright position and stored in a dry and shaded place especially during the summer months.

ii. Avoid stacking of membranes on pallets to avoid causing damage to the membranes.

C. General

i. Membrane application should be carried out when the ambient temperature is between 10°C to +45°C.

ii. Avoid application in extreme weather conditions like dust storm, rain, or snow.

SECTION II: Application Guidelines- Basements & Foundations

A. Surface Preparation

i. The surface shall be cleaned of all loosely adhering particles and contaminants which may affect the adhesion of the membrane. Remove all protrusions and nail heads which may damage the membrane. Any dew settled, or concrete dampness should be thoroughly cleaned using a dry cloth. Repair all potholes with a suitable and appropriate repair mortar.

ii. Prepare 25mm x 25mm angle fillets on all internal corners with a cement sand mortar which should have a 45-degree fillet. External corners shall have a 20mm chamfer.

iii. Prepare a 20mm x 20mm groove on the up-stand and parapet wall for tucking and finishing the membrane.

B. Priming

i. Apply a coat of **iKOTE SB41** solvent-based primer on the prepared surface. Allow the primer to dry before membrane application. This enhances the adhesion of the membrane with the substrate.

ii. Apply a fresh coat of primer if the membrane application gets delayed for more than 12 hours.

C. Membrane Application

Horizontal Areas

i. **iStik 400R** membrane installing is recommended to start from the low point so the flow of water is over or parallel to the plies, but never against the laps. All overlaps at the membrane seams shall be installed to have "up" slope laps over "down" slope laps.

ii. Unroll only the required length of the membrane and cut the pieces to the desired length and shape.

iii. Re-roll the membrane for about half the length without changing its orientation. Then slowly unroll the membrane, peel off the release film, and carefully place the membrane on the surface. Smoothen out any entrapped air by pressing from the center to the sides by the wooden press.

iv. Furthermore, an iron roller shall be used for rolling on top of the applied membrane to ensure a proper and strong adhesion of the bitumen compound with base surface.

v. All overlaps will be butt jointed as the bitumen will not adhere to the polyester fleece. To provide a watertight seal and restrict any water penetration through these butt joints, a 100m strip of a double-sided bitumen adhesive membrane (**iStik TS**) shall be laid on the overlap area prior to the application of the membrane. Once the bitumen strip is put in place, remove the silicone release film from the top and expose the self-adhesive bitumen. The **iStik TS** membrane will then be applied on top of the exposed **iStik TS** overlapping by 50mm. The subsequent membrane will then be overlapped with the other 50mm of **iStik TS.**

Vertical Areas

Internal corners should have a 45degree fillet. Place a 200 mm wide strip of the **iStik TS** membrane centered along the corner as a reinforcing strip.

External corners should have a 20mm chamfer. Place a 200 mm wide strip of the **iStik TS** membrane centered along the edge as a reinforcing strip.

- Similar to the method followed for the horizontal area application, the membrane is unrolled and aligned with the area to be waterproofed. The membrane after re rolled is slowly un-rolled and stuck to the surface by peeling off the silicone release film and exposing the self-adhesive side. Entrapped air shall be smoothened out from the center to the sides by a wooden press followed by rolling with an iron roller to ensure a proper and strong adhesion of the bitumen compound with base surface.
- The membrane shall be terminated on the top end by tucking into a groove cut in the concrete surface of the vertical wall and sealed with a suitable mastic sealant.

Membrane around Pipes

- A fillet 50mm x 50mm using an appropriate material is molded around the pipe. A 200 mm wide reinforcing strip of **iStik TS** will be laid all around the fillet after applying the primer. The joint of the membrane with the pipe will be sealed with a suitable mastic.
- Cust the **iStik 400R** membrane in star manner and apply it over the **iStik TS** membrane after removing the silicone release film from the top surface.

B. Membrane Repair

Any damage to the membrane caused due to various factors during ongoing site activities or subsequent works shall be repaired immediately to maintain the waterproofing integrity. All repair works shall be carried out after consultation with the manufacturer or the supplier of the membrane.
Due to the presence of SBS polymer in the modified bitumen compound, any minor damages which are less than 0.5mm diameter will be self-healed.
However, damages larger than 0.5mm diameter shall be patched with a piece of the same membrane which extends at least 2 inches from all the sides of the puncture. The area to be repaired should be primed with the bitumen primer and allowed to dry before carrying out the patching works.