

# Method statement for BC Bitu membrane

## System Description

Installation of BC Bitu membrane, bituminous waterproofing membranes, torch-on sheet. This is modified bitumen, reinforced with polyester non-woven fabric. It can be exposed or under protective layer

## Characteristics / Advantages

Resistant to ageing
Resistant to weathering
Good tensile strength and elongation
High resistance to water vapour (non-vapour permeable)
Good dimensional stability
Flexible at low temperatures
Easy to install with the torch-on method
Not resistant to root penetration
Suitable as top layer for multi layer installations
Good resistance to mechanical impact
Must be installed on suitable primed, uniform and smooth substrates such as concrete and Brickwork

## Application

### Surface Preparation

Ensure that the surfaces are clean and free from all traces of loose materials, old coatings, curing membranes, release agents, laitance, oil, greases, etc
Remove structurally unsound layers and surface contaminants by abrasive blast tracking or grinding.
Clean substrates heavily impregnated with oil by torching or suitable solvent cleaning methods.
Use a suitable cement-based patching mortar for re-profiling defects on horizontal surfaces.
The patching mortar should depend on the scope, particular conditions and requirements of the work.
Form chamfers (or angle fillets if required) at all corners to prevent excessive bending of the membrane.

## Priming

After having prepared and cleaned the surfaces as described above, for fully bonded applications, apply a coat of BC Bitu memb PU , a bituminous primer, over the concrete substrate
Allow the primer to dry for at least 4-6 hours (it is considered dry, or tack free, when rubbing with a wet finger does not produce a stain).
Do not apply the primer in wet weather or under direct sunlight.
Consumption: 0.2 kg/m <sup>2</sup> (added with water; ratio 1:1)

## Application (Fully Bonded)

The membranes get fully bonded to the substrate by heating them with a gas torch. On vertical surfaces, or very steep ones, in order to avoid any possible detachment due to the weight of the membrane, it should be solidly fixed to the support with nails or tucked into performance chase and sealed by a PU sealant BC Tec 30 S. On horizontal or near horizontal surfaces, full bonding is normally used for the external membrane, applied over one partially bonded.

## Welding Method

Place the BC Bitu membrane onto the primed concrete surface.
Do not remove the polyethylene backing sheet. It will melt away under the heat of the flame.
Ensure that the torchable side of the membrane is facing down.
Torch the underside of the membrane until the plastic backing sheet has melted. Ensure that the flame heat is applied evenly and within the correct temperature range (a bead of bitumen must be visible on the underside of the membrane). Then press firmly the membrane onto the substrate.
Ensure that the side overlaps are $\geq 100$ mm and end overlaps $\geq 150$ mm.
Any air pocket shall be cut out and repaired by patching another piece of Sika® Bituseal T-130
Extend BC Bitu membrane membrane up to the parapet wall at least 300 mm high.
The torch-on membrane surfaces must have a positive slope or fall to effectively drain the water.
<b>Protective Screed</b>
Provide a protective layer, either a cement-sand screed, immediately after application of Sika®

Bituseal T-130 SG and ponding test to protect from against mechanical / impact damages

#### 4.6 NOTES

Ponding test can be carried out after a minimum of 24 hours following application.

Insulation: The insulation boards are fixed over the top of the membrane and overlaid with pavers or ballast, commonly called an inverted roof. When insulation is incorporated in the roof structure design, the Designer should ensure that the dew point is to the outside of the membrane system.