



## **SRO 833 Waterproofing Specification – Underslab Membrane Bituminous Sheet Membranes - Protected System**

### **Scope**

Bituminous membrane system applied in sheets to approved substrates to form a fully bonded, protected continuous barrier against water penetration.

### **Applications**

These bituminous membrane systems may be used in a number of situations such as;

- Under basement structural slabs, including lift pit bases
- Under self-supporting reinforced concrete toppings on roadways, rooftops, external balconies
- On Structural Slabs to be covered with landscaping materials

### **Substrates**

Suitable substrates for these bituminous membrane systems include

- Concrete
- Compacted hard fill or unreinforced concrete blinding layer

### **Substrate Preparation**

Substrates to which the bituminous sheet membrane are to be applied must be structurally sound and free of all contaminants (e.g. laitance).

The substrates must have completed the recommended minimum curing/drying periods (e.g. 28 days for concrete) with all holes/voids filled with cement based patching mortars (e.g. [ARDEX A46](#) or [ARDEX BR 345](#) system) and all surface protrusions ground flat.

Ensure all pipe penetrations through the membrane are suitable for the torch applied membrane to be applied and seal onto.

Coving fillets (minimum 50 x 50mm) shall be provided to all internal corners. The fillets can be formed using a rapid setting patching mortar such as [ARDEX A46](#).

### **Membrane Systems**

The bituminous membrane systems can be one of the following combinations;

- Two layers of [ARDEX WPM 150](#) bituminous sheet membrane
- Two layers of [ARDEX WPM 188](#) SBR modified bituminous sheet membrane

### **Priming**

- Prime all prepared concrete substrates with [ARDEX WPM 240](#) Bituminous primer and let dry where the torch applied sheet membrane can be bonded
- Where the bottom layer of torch on sheet membrane can be loose laid onto blinding layers (concrete or compacted fill), do not apply the prime coat

### **Sheet Membrane installation**

- Apply the sheet membranes to the prepared substrates using LPG or LNG torch techniques with sheet overlaps (100mm side-laps and 150mm end-laps) fully welded together
- Apply the base layer first before commencing to apply the second layer



- The second layer is to be placed so the overlaps of the base layer are covered by the mid-sections of the second layer sheet membrane. This ensures the bottom overlaps are resealed with the molten bitumen of the top layer
- The Underslab bituminous sheet membrane must be compatible with the sheet membrane used to waterproof the lift shaft as these membranes will be welded together around the shaft

Once the two layers have been applied, the top edge termination of the membrane shall be secured one of the following systems;

- [ARDEX Pressure Seal](#) mechanically fixed in position
- Liquid applied flashing such as the [ARDEX WPM 179](#) Bituminous latex membrane

### Protection

The bituminous sheet and liquid membranes must be protected from sunlight and from mechanical damage from the backfill materials or the self-supporting toppings placed over the installed membrane. Protective materials include the following;

- Ardex Protection Board
- Geotextile fabric minimum 5mm thick
- Plastic sheet (approx. 300 micron thick) in two layers under toppings

### Notes:

- *ARDEX has other bituminous sheet membrane systems that may be also suitable for this application if required.*

### Disclaimer:

*The recommendation selected is based upon questions answered on the ARDEX Australia website. This recommendation is designed as a general application for your described situation and should not be considered site specific documentation for general distribution. Always consult the latest relevant ARDEX Technical Bulletins and information on the product packaging and/or product data sheets (available on the ARDEX Website). Australian and other relevant standards should be followed during installation. If you have any further questions or would like further clarification please contact the ARDEX Technical Services Hotline on 1800 224 070 (9am to 5pm Monday to Friday).*

*Document revised to remove reference to WPM172 and Detail Tape.*