

## Outstanding Elongation and Resistance to Water, Soaps, Bleach and Re-emulsification

Complies with AS/NZS 4858-2004 defining performance criteria for wet area membranes.

### **PRODUCT TYPE:**

Water based single component polyurethane modified acrylic.

### **DESCRIPTION:**

Aquaplex is a single component polyurethane modified acrylic waterproofing membrane. The cured film forms a one piece waterproof skin that is formed in situ. The film is very flexible, highly elastic, is yellow in colour and will not bleed through and stain porous overlaid materials such as, marble or natural stone. The cured membrane is overlaid with ceramic or clay tiles, slate, stone and or many other hard wearing floor surfaces or UV stable membranes.

### **PROPERTIES:**

Aquaplex is a high solid, low V.O.C. formulation that contains no harmful solvents making it low in ordure and safe for applicators during internal wet area application.

It is polyurethane modified for added resistance to water, soaps, bleach and alkali and does not contain plasticizers that can leach from the cured film and detract from the product's long-term elasticity or cause unsightly stains in overlaid materials such as, marble or natural stone or acrylic membranes.

Aquaplex is highly water repellent, has excellent elongation, flexibility and tensile strength and is chemically adhesion promoted to provide a strong bond to the substrate.

The product can be used as a stand alone membrane or it can be reinforced with Astec Sontara or Deckweb polyester cloth to further enhance tensile strength and tear resistance with a subsequent increase of Elongation to break of 1220%.

### **KEY PROPERTIES**

- Excellent elongation >1000%.
- Outstanding tensile strength 0.96 mpa. (Without reinforcing)
- Does not re-emulsify in water.
- Excellent resistance to soaps, bleach and alkali .
- Plasticizer free, (internally plasticized)

- High volume solids.
- Very low VOC
- Complies with AS/NZS 4858-2004.
- Very low ordure
- Good inter-coat adhesion with cement based mortar beds and setting adhesives.

### **PRINCIPAL USES:**

Waterproofing internal wet areas including shower recess bases (membrane forms a shower tray) and associated floors and walls. As a base membrane for balconies and roof decks prior to top-coating.

The membrane can be used to waterproof concrete, cement render, brick and block work, fibre reinforced cement sheeting, water resistant plaster board, plywood or particle board flooring.

- Shower trays
- Balcony decks.
- Podium decks
- Planter boxes.
- Box gutters.

### **SUBSTRATE:**

Correctly prepared new and aged plaster, cement based skim coats, renders precast concrete, timber, fibro, paper faced boards.

### **COLOUR RANGE:**

Yellow.

### **Coverage Rate:**

0.62 m<sup>2</sup> per ltr @ 1mm DFT

### **SURFACE PREPARATION:**

All surfaces must be clean, dry, free from large surface contaminants and structurally sound. Surface preparation may be carried out by the use of high pressure water cleaning, power buffing or scraping or vacuum cleaning. Mould and fungus infested walls should have sodium hypochlorite applied to the substrate prior to pressure washing. This process will kill any moulds and assist in their removal. Any structural cracks should be saw cut and struck smooth with a cementitious or low shrink grouting compound.

### **SEALING AND PRIMING THE SURFACE:**

- Friable surfaces.  
Apply Astec Multi-seal to securely lock and bind the substrate to a hard, stable surface suitable for coating application.  
(Read relevant product technical data sheet.)
- All stable construction materials.  
Apply one coat Astec Epitec Primer.  
(Read relevant product technical data sheet.)
- *If Unsure, Contact Astec for the correct preparation technique, sealers, primers and undercoats before proceeding.*

### **MIXING:**

- Thoroughly mix before use with a paint wacker or broad flat stick.

### **LIMITATIONS**

- Aquaplex is a water-based material, therefore, should not be applied during inclement weather or when precipitation or freezing are imminent.
- Aquaplex Membrane is not a vapour barrier nor is it designed to stop a hydrostatic head of water pressure.
- Membrane should not be installed on wet, contaminated, or friable substrate.
- Membrane should not be applied to surfaces with special protective or cosmetic coatings without prior consultation with Astec.
- Rate of Aquaplex cure will be inhibited when applied below 14°C.
- Should not be applied greater than 1.5mm in depth in one application.
- Total thickness of Astec Aquaplex Membrane should not exceed 2mm.
- Requires natural ventilation to fully cure. It should not be used on totally confined or air free spaces.
- Mortar bed screeding or tiling should not be carried out until membrane is fully cured.
- To eliminate possible surface contamination tiling should be carried out within 72 hours of Membrane application.

### **PRECAUTIONS FOR USE:**

Avoid contact with skin and eyes.

### **KEEP OUT OF REACH OF CHILDREN**

### **PACKAGING**

15 ltr open top pail.

### **SHELF LIFE:**

When stored at or below 27°C Astec Aquaplex has a shelf life of 12 months from date of manufacture. All materials shall be stored under cover in a manner that will prevent damage preferably on pallets and protected from excessive heat and moisture.

### **COMPLEMENTARY PRODUCTS:**

- Closed cell Polyurethane backer rod.
- Astec fast cure Polyurethane joint sealant.
- Astec Muti-seal.
- Astec Epitec Primer.
- Astec Deckweb.
- Astec Sontara Tape.

### **CLEAN UP**

Water

### **ADHESION TO SUBSTRATE (A.T.S. PROGRAM)**

This program is intended to eliminate potential field problems by re-testing Astec's Aquaplex Membrane with samples of building materials on which the Membrane will be applied. Astec Technical Services are available to pre-test any samples of substrate where the specified/purchaser/ applicator may believe doubts on application suitability exists. The tests will aid in determining the proper surface preparation method. Following this procedure will remove many of the unknown variables that affect field success. Please contact your Astec Representative for further details.

### **APPLICATION:**

- Apply multiple coats straight from the drum by brush or roller to a D.F.T of no less than 1000mic.
- ***The use of Aquaplex in wet areas should be in strict accordance with Australian Standards AS/NZS 4858-2004***
- Refer application details below.

### **WARRANTY**

The technical data furnished herein is based upon data believed by Astec Paints to be true and accurate at the time of writing, however, no guarantee of accuracy is given or implied and is subject to change without notice. It is given in good faith for the assistance of users. No legal warranty expressed or implied is made as to its accuracy, completeness or otherwise. Every person dealing with this material herein does so at their own risk absolutely and must make independent determinations of suitability and completeness from all sources to ensure their proper use. We have no control over the condition under which these products are stored, handled or used, therefore our recommendations must not be regarded as a mounting to legal warranty or as involving any liability on us. Any intended application of Astec Aquaplex Membrane outside of interior wet area use should first be referred to Astec Technical Services for approval.

PRODUCT DATA;	
Gloss level	N/A
Drying Time at 25°C @ 200 MIC W.F.T.	30 min tack /1 hour dry
Recommended thinners	Do not thin.
Wash up	Water
Recoat time at 25°C	1 to 2 hrs
Theoretical spread rate at D.F.T (1000 microns Dry)	0.62 m <sup>2</sup> per ltr
Elongation to break % (Control)	>1000%
Tensile strength mpa (Control)	0.96
Specific gravity.	1.354
Volume Solids.	62.48% V/V
Viscosity	150000 Cps (Non Sag)
P.V.C.	12% V/V

### Aquaplex test results

**Note:** 1000% elongation read as ">1000%"; The number is rounded for calculation of the retained %.

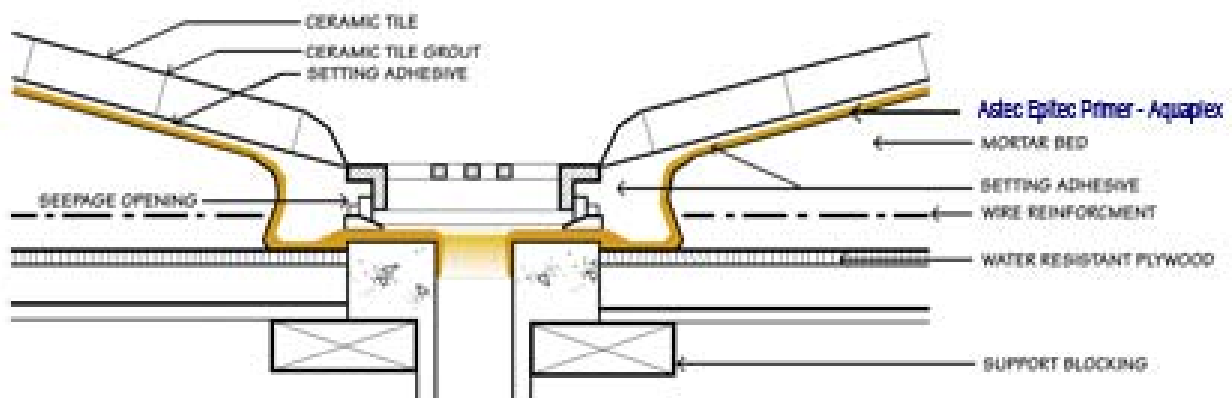
**Pass/Fail** **Pass (P)** =/>50% retained elongation at break.  
**Conditional Pass (CP)** =25-50% retained elongation at break.  
**Fail** =/<25% retained elongation at break.

TEST DATA 1000 Mic DFT film;											
Membrane	Test	Control		7 Days				28 Days			
		Tensile Mpa	Elongation %	Tensile Mpa	Elongation %	Retained %	Pass/Fail	Tensile Mpa	Elongation %	Retained %	Pass/Fail
Aquaplex	Solution	0.96	1000								
	Water			0.33	1000	100	P	0.39	1000	100	P
	Bleach			0.28	1000	100	P	0.34	1000	100	P
	Detergent			0.40	1000	100	P	0.26	683.2	68.3	P

TEST DATA 1000 Mic DFT film;											
Membrane	Test	Control		56 Days				Water absorption-dry film			
		Tensile Mpa	Elongation %	Tensile Mpa	Elongation %	Retained %	Pass/Fail	% Uptake- 10 Days		% Uptake- 30 Days	
Aquaplex	Solution	0.96	1000								
	Water			0.43	1000	100	P	16		18	
	Bleach			0.41	884.1	88.4	P				
	Detergent			0.25	722.1	72.2	P				

## Application of *Aquaplex* as a Waterproofing Membrane for Shower Recesses

SHOWER DRAIN DETAIL WITH SAND/CEMENT PRE-FLOAT



### Method 1

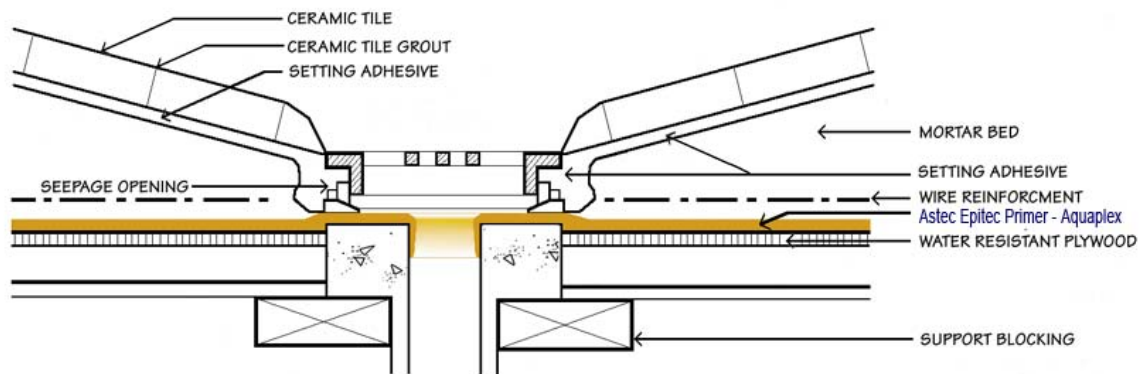
#### Shower drain detail with sand cement pre-float.

The membrane is to be applied above any levelling mortar layer and shall be immediately below the intended tile system.

1. Apply one coat Astec Epitec Primer to the entire surface.
2. Apply a coat of Astec Aquaplex with log hair brush using enough pressure to achieve good contact to the substrate. Smooth uniformly with the brush to remove any pin holes. Apply only medium pressure so as not to cut through the wet membrane, this will give a uniform thickness of 1-1.5mm.
3. The membrane must be applied not less than 25mm above the maximum water height from floor tile level and 1800mm high x 100mm wide on vertical corners and for hobless showers, the membrane is extended not less than 75mm up the walls from the finished floor tile level.
4. As a continuous 1mm membrane depth is required for waterproof integrity it is recommended that after initial set takes place (2-4 hours depending upon humidity and temperature), surface should be inspected for any voids, pin holes or air bubbles.
5. If evident, seal with a second coat of Astec Aquaplex Membrane.

## Application of *Aquaplex* as a Waterproofing Membrane for Shower Recesses

SHOWER DRAIN DETAIL WITH SAND/CEMENT PRE-FLOAT



### Method 2

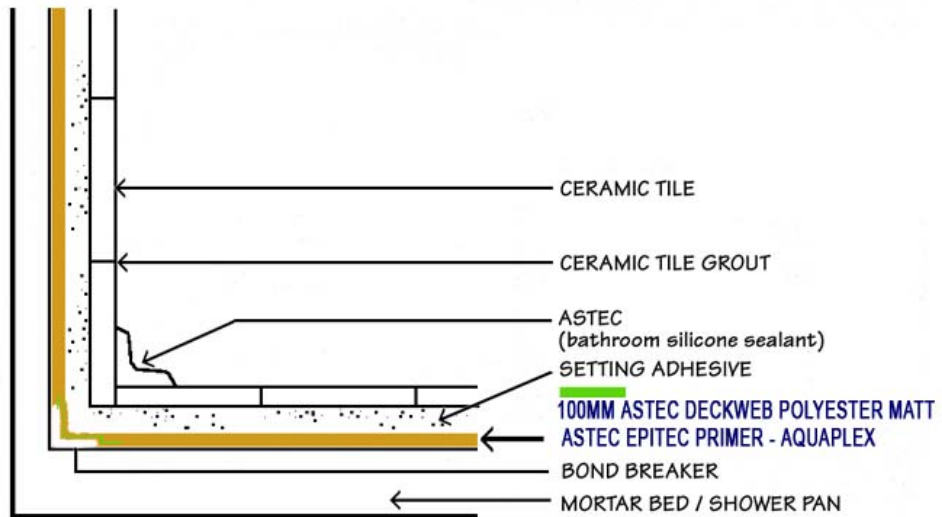
#### Shower drain detail with sand cement pre-float.

The membrane is to be applied below any levelling mortar.

1. Apply one coat Astec Epitec Primer to the entire surface.
2. Apply a coat of Astec Aquaplex with log hair brush using enough pressure to achieve good contact to the substrate. Smooth uniformly with the brush to remove any pin holes. Apply only medium pressure so as not to cut through the wet membrane, this will give a uniform thickness of 1-1.5mm.
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# Application of Aquaplex as a Waterproofing Membrane for Shower Recesses

## SHOWER STALL WALL (Cross Section)



## TREATMENT OF ISOLATION JOINTS (Columns, Pillars, Walls, etc.)

