

### DESCRIPTION

**Bituplus P4180** bitumen membranes are plastomeric waterproofing membranes, manufactured from a rich mixture of bitumen and selected polymers (Atactic Poly Propylene) blended together to obtain excellent heat and UV resistant and waterproofing properties. The polymerized bitumen is coated on to a dimensionally stable reinforcement core of non woven, spun bond polyester, rot-proof fabric. The membrane has excellent tensile and tear strengths and has a high fatigue and puncture resistance.

### • USES

**Bituplus P4180** is used as a waterproofing/damp proofing membrane for protection of various substrates in a wide range of applications which includes the following:

- Inverted roofs.
- Terraces, balconies and patios.
- Sunken slabs.
- Concrete foundations and footings.
- Basements.
- Pile heads.
- Swimming pools and water retaining structures.
- Bridges and tunnels.
- Airport aprons and ramp areas.

### • ADVANTAGES

- High resistance to positive water and vapour pressure.
- Good dimensional stability under tension.
- Excellent flexibility.
- High puncture and fatigue resistance.
- High tensile and tear strengths.
- Resists water borne chemicals.
- Accommodates structural movements.

### • APPLICATION

Application procedures may vary slightly depending upon site conditions. Written below are general guidelines for the application of the waterproofing system:

#### Surface preparation

The surface should be free from dust, dirt, curing compound, oil etc. Clean the surface thoroughly to remove all loosely adhering particles and cement laitance. All surface imperfections and protrusions are to be removed and repaired. Structurally unsound and friable concrete must be removed and repaired with a suitable **Polycrete** repair mortar.

#### Priming

Apply Polyprime SB @ 4-6m<sup>2</sup>/lt. as per ASTM D 41 to a clean smooth and dry surface by brush, roller or spray. Refer primer data sheet for more details. Allow the primer to dry prior to the application of the membrane.

#### Alignment

Unroll and align **Bituplus P4180** rolls and re-roll correctly before torching. Side and end overlaps should be a minimum of 100 mm.

#### Torching

Use a gas torch to heat the substrate and the underside of **Bituplus P4180**. When the embossing on the membranes starts to disappear during torching the membrane is ready to stick. Roll forward and press firmly with a roller against the substrate to bond well.

Caution: Do not over torch as this will expose the reinforcement in the membrane and cause damage to it.

#### Sealing

Heat both the overlaps and use a round tipped trowel to seal the overlap. Excess compound should be smoothed and pressed into the seam using a heated trowel.

## Up stand

All angles and abutments should be sealed with extra care to ensure full bonding. Seal the edges well into the grooves and protect with **Polyseal PS** or suitable mastic sealant.

### • STANDARDS

**Bituplus P4180** membranes conform to the requirements of ASTM D 6164 Type I and Type II, UEAtc MOAT 31-1984, and tested in accordance with UEAtc MOAT 27-1983, ASTM D 5147.

## BITUPLUS MEMBRANES P4180

PROPERTIES	VALUES	STANDARD
Roll Size, m	10 x 1	-
Thickness, mm	4.0	-
Unit Weight, kg/m <sup>2</sup>	4.0-4.20	UEAtc
Reinforcement (polyester), g/m <sup>2</sup>	180	UEAtc
Coating Asphalt	Polymer Modified Asphalt	
Softening Point (R&B), °C	> 150	ASTM D 36
Penetration at 25°C, dmm	15 – 25	ASTM D 5
Tensile Strength (L/T), N/5cm	800/600	UEAtc
Elongation at Break (L/T), %	40/50	UEAtc
Lap Joint Strength (L/T), N/5cm	>800/600	UEAtc
Tear Resistance (L/T), N	180/200	UEAtc
Puncture Resistance	Static : L <sub>4</sub> Dynamic : I <sub>3</sub>	UEAtc
Resistance to leakage at joints	Pass	UEAtc
Resistance to Water Pressure	No Leakage	BS EN 12390
Water Absorption, % (BSP)	<0.2	ASTM D 5147
Heat Resistance at 120°C	No Flow	UEAtc
Resistance to Aging after 2000 hrs (Weather – 0 – Meter)	No Deterioration	ASTM D 4799
Dimensional Stability	<0.3%	UEAtc

In accordance to the standard 5 - 20 % variation is expected.

### • STORAGE

**Bituplus P4180** rolls are to be stored vertically in a clean covered area preferably on pallets. The rolls should at no point in time be stacked on top of each other.

### • SAFETY PRECAUTIONS

Any naked flame should be kept well away from the gas cylinders. When ignited the torch should be watched at all times. The torch should not be rested on finishing roofing. Extreme care should be taken when working near combustible materials or items which might be scorched by the gas flame.

### • DISPOSAL

**Bituplus P4180** is non-hazardous, non-flammable and therefore can be disposed into any regular disposal area. However, it should be disposed only after wrapping with paper, plastic or cloth as the modified bitumen has a tendency to soften under heat and pressure which would make further handling very tough.

### • HEALTH AND SAFETY

**Bituplus P4180** contains a tacky bitument compound which, while applied can stick to human skin. Such stains can be removed by using a cloth dipped in a light solvent. If the affected area is a sensitive area medical attention should be sought.

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The information given in this data sheet is based on our current knowledge of the product when properly stored, handled and applied. We cannot guarantee that the product will be suitable, effective or safe when used for any purpose other than its stated uses.  
To the extent that it is lawful, we exclude warranties implied by law and limit our liability to the cost of replacing the product. We accept no responsibility for loss or injury caused by improper use, incompetent preparation, inexpert or negligent application, or ordinary wear and tear.  
Service or advice given by our staff should not amount to responsibility for the project - since the owner, or their contractor is responsible for procedures relating to the application of the product.

### Distributed by



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