



# IMPERVIOUS WATERPROOFING®

## TECHNICAL DATA SHEET

### IMPETHANE® BP

IMPETHANE® BP is a fast-curing, two-component, bitumen-extended polyurethane fluid. It produces a highly elastic membrane with strong adhesion to many types of surfaces and excellent mechanical and chemical resistance. It is based on a pure elastomeric hydrophobic polyurethane resin extended with chemically polymerised virgin bitumen.

#### APPLICATION

Clean the surface using a high-pressure washer, if possible. Remove oil, grease, and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes, etc. must be removed.

##### Priming:

Choose primer from the Primer Selection Table and follow the application instructions given on its prospectus.

##### Mixing:

Mix equal volumes of the two components manually or with a low speed (300 rpm) mixer. Apply mixed quantities immediately. Pot life (of mix): 30-45 min at 20°C / 68°F

##### Crack Bridging:

Apply IMPETHANE® BP (or IMPETHANE® BP-1) locally over any cracks larger than 1mm (0.0394 ") before the main coat.

##### Application:

Apply with brush, roller, spatula or airless spraying. (please see consumption table).

*For application by airless spraying, the mix may have to be thinned with a small quantity of XYLENE, especially for low-power applicators.*



#### ✓ FEATURES & BENEFITS

- Components easily mixed 1:1 by volume.
- Fast curing.
- Thick, bubble-free, membrane possible.
- Being a two-component product means that the quantities not mixed can be stored for later use.
- Its low modulus gives it excellent substrate crack-bridging properties.
- Excellent adhesion on almost any surface, with or without the use of special primers.
- No thinning is required but XYLENE may be used.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80°C / 176°F max shock temperature 200°C / 392°F
- Resistance in the cold: The film remains elastic even down to -40°C / -40°F
- Excellent mechanical properties, high elongation, tensile and tear strength, high abrasion resistance.
- Good chemical resistance.
- Good water vapor barrier properties.
- Can also be used as a joint sealant.

## RECOMMENDED FOR

- Gypsum and Cement Boards • Polyurethane Insulation Foams • Asphalt Membranes
- EPDM Membranes • Bathrooms (under tiles) • Verandas and Balconies (under tiles)
- Flower Pots and Roof-Top Gardens • Light Roofing made of Metal or Fibrous Cement
- Non-Potable Water Tanks • Basements • Foundations • Bridge Platforms • "Cut-and-Cover" Tunnels • Irrigation Channels

### Can be successfully applied on:

Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, and galvanized steel. For information about other substrates, please contact our tech department.

Concrete Conditions: Hardness: R28 = 15Mpa / Humidity = W < 10% / Temperature: 5-35°C / 41-95°F. /Relative Humidity: < 85%



### RECOMMENDATION

Use a low speed (300rpm) mixer to ensure product is fully combined before application.

## TECHNICAL DATA

**COLOUR:** Black

**DRYING TIME:** Tack-free in 1-2 hours. Curing time of 6-24 hours (temperature dependent). If more time passes (+3 days) or if you are unsure about adhesion, contact our technical team. They will be able to advise you on which primer to use. Ensure surface is dry before doing so.

**CLEANING:** Firstly, clean all equipment with paper, then use xylene. Rollers will not be re-usable.

**SHELF LIFE:** Can be kept for 12 months minimum in original unopened pails.

**STORAGE:** Ensure pails are stored in dry places and at temperatures between 5-25°C / 41-77°F. Once opened, use as soon as possible.

## SPECIFICATIONS

**In liquid form (before application):** ~90% dry matter in XYLENE.

| Property                                                         | Units  | Method                                    | Specification |
|------------------------------------------------------------------|--------|-------------------------------------------|---------------|
| Viscosity (Brookfield)<br>Comp A: Resin<br>Comp. B Ashpaltic mix | cP     | ASTM D2196-86, @ 25°C                     | 1300<br>4300  |
| Viscosity (Brookfield) of the mixture                            | cP     | ASTM D2196-86, @ 25°C                     | 3000          |
| Specific weight of the mixture                                   | gr/cm3 | ASTM D1475 / DIN 53217 / ISO 2811, @ 20°C | 0.97          |
| Flash point                                                      | °C     | ASTM D93, closed cup                      | >40           |
| Tack-free time, @ 77 of (25°C) & 55% RH                          | hours  | -                                         | 1-2           |
| Recoat time                                                      | hours  | -                                         | 6-24          |

## Cured membrane:

| Property                                                                        | Units             | Method                            | Specification         |
|---------------------------------------------------------------------------------|-------------------|-----------------------------------|-----------------------|
| Service temperature                                                             | °C                | -                                 | -40 to 80             |
| Max. temperature short time (shock)                                             | °C                | -                                 | 200                   |
| Hardness                                                                        | Shore A           | ASTM D2240 / DIN 53505 / ISO R868 | 35                    |
| Tensile strength at break @ 23°C                                                | Kg/cm2<br>(N/mm2) | ASTM D412 / EN-ISO-527-3          | >20<br>> (2)          |
| Percent elongation @ 23°C                                                       | %                 | ASTM D412 / EN-ISO-527-3          | > 2000                |
| Tensile set (after 300% elongation)                                             | %                 | ASTM D412                         | < 1%                  |
| Thermal resistance (200 days @ 80°C)                                            | -                 | EOTA TR011                        | passed                |
| QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50°C) | -                 | ASTM G53                          | passed<br>(1000hours) |
| Chemical resistance (Sodium Hypochlorite NaOCl 5% 10 days)                      | -                 | -                                 | unaffected            |
| Hydrolysis resistance (Potassium Hydroxide 8% 10 days @ 50 °C)                  | -                 | -                                 | unaffected            |
| H2O absorption (10 days)                                                        | -                 | -                                 | < 0.9%                |

## LIMITATIONS

Not recommended for unsound substrates or UV-exposed applications

## MINIMUM CONSUMPTION RATES

|                                                                                                                                                                     |                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  APPLY WITH MINIMUM CONSUMPTION:<br><b>5.06 US GALLONS PER 100FT<sup>2</sup></b> |  APPLY WITH MINIMUM CONSUMPTION:<br><b>1.5KG/M<sup>2</sup> PER COAT</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|

## PACKAGING

|                                                                                                                         |                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
|  • 2.72 US GAL KIT • 10.9 US GAL KIT |  • 10KG KIT • 40KG KIT |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|

## SAFETY INFORMATION:

CONTAINS VOLATILE FLAMMABLE SOLVENTS. APPLY IN WELL-VENTILATED, NO SMOKING AREAS, AWAY FROM NAKED FLAMES. IN CLOSED SPACES USE VENTILATORS AND CARBON ACTIVE MASKS.

KEEP IN MIND THAT SOLVENTS ARE HEAVIER THAN AIR SO THEY FLOAT NEAR THE FLOOR. THE MSDS IS AVAILABLE ON REQUEST.



# IMPERVIOUS WATERPROOFING®

WORLD-LEADING POLYURETHANE LIQUID WATERPROOFING

Visit our website to view product application guides and data sheets for our full range of products.

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