

## Blueshield PmB

Waterproofing Membrane

### PRODUCT DATASHEET



### Description

Blueshield PmB is a two part, blue pigmented polyurethane elastomer. The solvent free membrane is spray applied and gels in seconds to provide a seamless barrier against the ingress of water and other contaminants. The system has over 20 years unparalleled track record with thousands of structures waterproofed successfully throughout the world.

### System Features

- Class leading adhesion
- Weather resistant
- Excellent crack bridging
- Tear resistance
- Abrasion resistance
- Water vapour and gas permeability
- Sound installation
- Chemical resistance
- Homogenous watertight seal
- Resistant to root / microbial attack
- Low flammability rating
- Applied by own spray personnel

### Surface Preparation

It is essential that the success of any waterproofing system is dependent on the thoroughness of the surface preparation:

#### Concrete

Concrete should be a minimum of seven days old. The substrate must be clean, dry and structurally sound. It must be clean, dry and structurally sound. It must be free from laitance, oils and all other surface contaminants. Repairs to damaged concrete can be made using **Nufins Deck Repair Rapid**.

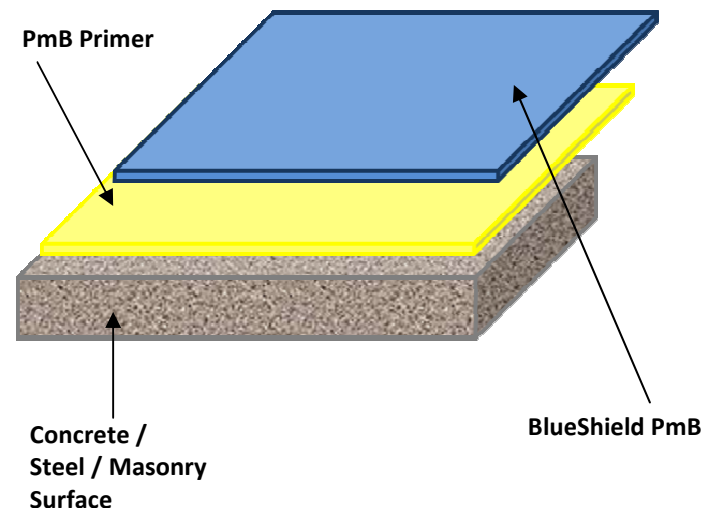
#### Steel

On steel surfaces all rust, dirt and contamination should be removed to expose bright metal to achieve a high quality surface finish.

For compatibility with other construction materials or where additives, cement replacement or curing compounds have been used consult our technical support staff.



### The System:



### Applications:

Blueshield PmB provides a complete waterproofing system to protect the substrate from the corrosive effects of water and chloride ions. Applications include:

- Podiums
- Roofing
- Airports
- Water Supply
- Basements
- Tunnels

## Technical Information

PROPERTY	VALUE
<b>Density</b> of spray applied elastomer, DIN 53479 mg/m <sup>3</sup>	0.85—0/95
<b>Shore A Hardness</b> BS903 Part A2 at 23°C	80
<b>Rebound Resilience</b> BS903 Part A8 at 23°C	26%
<b>Elongation at Break</b> ASTM D638 exceeds 80% requirement	>250%
<b>Tensile Strength</b> ASTM D638 exceeds 930 psi requirement	1815 psi
<b>Tear Strength</b> BS903 Part A3 23°C	28KN/m
<b>Low Temperature flexibility and crack bridging ability</b> ASTM test method Cert C836 at -26°C	Conforms
<b>Static and Dynamic Crack Bridging Test</b> BRE tested method EN1062-7 +23°C and -10°C maximised	In extension 14mm
<b>Cracking Endurance</b>	Undamaged
<b>Bending Test</b> Temperature range -20°C to -50°C	Undamaged
<b>Resistance to Flow and Heat</b> Flow Test 70°C Heat Test 240 °C	No effect undamaged
<b>Abrasion Resistance</b> DIN 53516m <sup>3</sup> Retention of mechanical properties, torsion modules DIN 53443	160mm <sup>3</sup> -40°C +110°C
<b>Glass Transition Temperature</b> DIN 53445	-42°C
<b>Water Tightness</b> University of Braunschweig 72 hours at 7 bar pressure. 15m in sweater = 1.5 bar	Watertight
<b>CO<sub>2</sub> Water Vapour Permability</b> University of Braunschweig DIN 52615 test report 437/5043-1	Confirmed 486, sd = 1.0m
<b>CO<sub>2</sub> Permability Engfield</b> U = 64,000 Sd = 15.0m	Confirmed
<b>Water Absorption Coefficient</b> DIN 52617 E	7.6 x 10 <sup>-3</sup> kg/m <sup>2</sup>
<b>Resistance to Chlorides</b>	Resistive
<b>Pull Off / Adhesion to Concrete</b> ASTM D4541 requirement	370 psi
<b>Pull Off / Adhesion to Steel</b> ASTM E96 procedure BW	855 psi
<b>Water Vapour Transmission</b> ASTM E96 procedure BW English units grams / ft / hr no requirements Metric units grams / m <sup>2</sup> / 24 hours no requirement	0.1 1.7
<b>Artificial Weathering</b> —1000 hours ASTM D4587 evaluate changes On elongation and tensile strength Requirement Elongation +10% -20% Requirement Tensile ± 10% relative	+6.0% +0.9%
<b>Electrical Resistivity</b> ASTM test method D257 Requirements >5 x 10 <sup>3</sup> ohm - cm	91 x 10 <sup>6</sup> ohm—cm
<b>Puncture Resistance</b> ASTM test method E154 Requirements 95kgf min	174 kgf

## System Components

### Blueshield PmB Primer

A single component, polyurethane based primer, which provides excellent adhesion between the substrate and the BlueShield PmB membrane. The primer is applied using roller brushes or airless sprayer and is ideal for use on concrete steel or masonry surfaces.

### Cleaning

All tools and equipment should be cleaned with Pitchmastic's solvent before the material is allowed to cure.

### Storage

All components of the Blueshield PmB system should be stored in a cool, dry, place, out of direct sunlight and in accordance with the relevant Health and Safety regulations.

### Technical Support

For further information can be obtained on request from our technical department.

### Health and Safety

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling BlueShield PmB components. Before working with these components, you must read and become familiar with the available information concerning their hazards, proper use and handling. This cannot be overemphasised. Information is available in several forms e.g. Material safety data sheets and product labels.

#### Pitchmastic PmB

Panama House  
184 Attercliffe Road  
Sheffield  
S4 7WZ  
UK

T: +44(0) 114 270 0100  
F: +44(0) 114 276 8782  
E: info@pitchmasticpmb.com  
W: www.pitchmasticpmb.com