

# Bituthene® 3000/3000 HC

Self-adhesive rubber/bitumen polyethylene waterproof membrane for basements and sub-structures.

## Advantages

- **Waterproof** - capable of resisting a hydrostatic head when fully supported.
- **Gas resistant** - methane, carbon dioxide and radon gas protection in excess of the standard membrane requirements in BRE Reports 211 (radon) and 212 (methane and carbon dioxide).
- **Cross laminated film** - provides dimensional stability, high tear strength, puncture and impact resistance.
- **Cold applied** - no heating, self-adhesive overlaps ensure continuity.
- **Chemically resistant** - provides effective external protection against aggressive soils and ground water.
- **Flexible** - accommodates minor settlement and shrinkage movement.
- **Controlled thickness** - factory-made sheet ensures constant, non-variable site application.

## Description

Bituthene® 3000 is a cold applied, flexible waterproof membrane combining a special high performance cross laminated, HDPE carrier film with a self-adhesive rubber bitumen compound. When used in conjunction with Grace waterstops, cast into the concrete structure, it will provide a continuous waterproofing/tanking system for basements and sub-structures. It is supplied to sites in rolls 1.5mm thick, 1m wide and 20m long and is unrolled sticky side down on to concrete blinding, concrete slabs or bonded on to vertical concrete faces primed with Primer B1. Continuity is achieved by overlapping 50mm and firmly rolling the joint.

Bituthene 3000 is extremely flexible and will bridge shrinkage cracks in concrete.

Bituthene 3000 HC is a hot climate grade, suitable for application at higher ambient temperatures.

## Installation

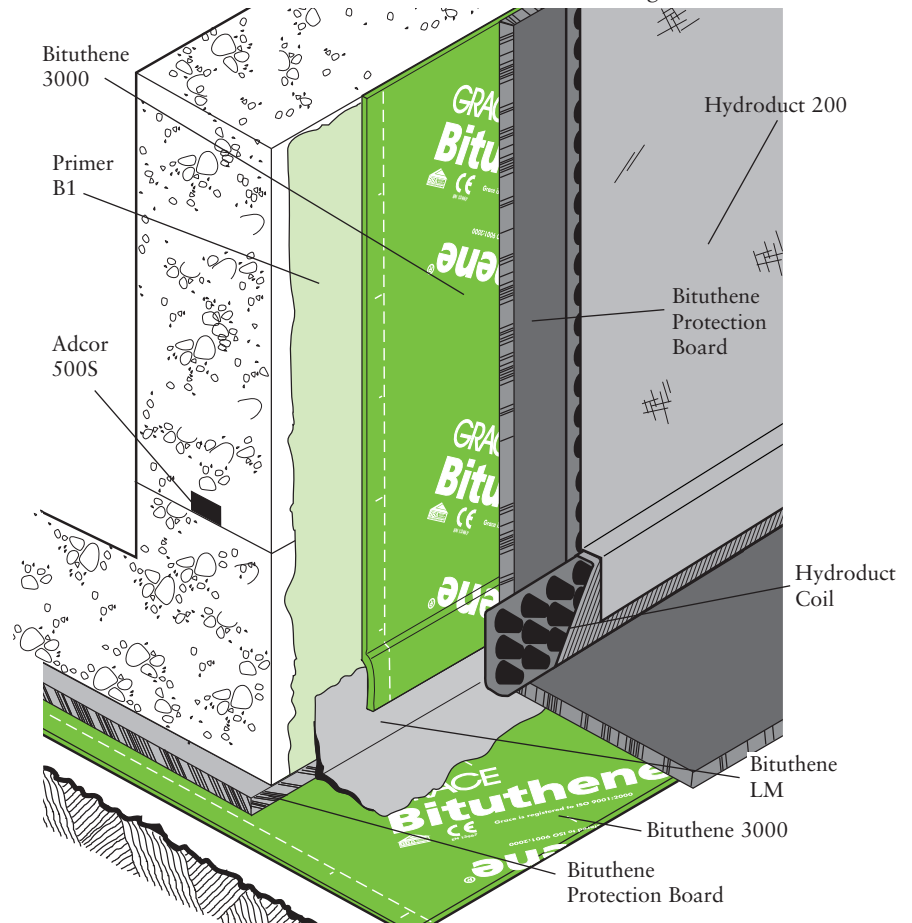
Minimum ambient application temperature 4°C. Ensure that all surfaces are clean, dry and free from ice/frost. For lower temperatures or damp surfaces use Bituthene® 8000. All surfaces except those below ground

bearing slabs should be primed with one coat of Primer B1 applied at a rate of approx. 10m<sup>2</sup> per litre.

Bituthene 3000 shall be laid by peeling back the protective release paper and applying the adhesive face onto the prepared surface, free from ice, frost or condensation.

Bituthene LM to be applied at necessary internal and external corners, penetrations etc. prior to applying the overall membrane.

Bituthene 3000 should be brushed onto the surface to ensure good initial bond



## Supply

|                             |  |
|-----------------------------|--|
| Bituthene® 3000/3000 HC     | 1 m x 20 m roll (20 sq m)<br>weight 32 kg  |
| Bituthene® 3000             | 15 rolls per pallet (Europallet)   |
| Bituthene® 3000 HC          | 20 rolls per pallet  |
| Storage                     | Store upright in dry conditions below +35°C  |
| <b>Ancillary Products</b>   |  |
| Primer B1                   | 5.25 and 25 litre drums  |
| Coverage                    | 10-12 sq metre per litre depending on method of application, surface texture, porosity and ambient temperature |
| Bituthene® LM               | 5.7 litre packs  |
| Bituthene® Mastic           | 4.5 litre can  |
| Bitustik™ 4000              | 150 mm x 12 m rolls  |
| Bituthene® Protection Board | 3 mm x 1 m x 2 m   |
| Adcor® 500S                 | 6 x 5 m rolls  |
| Hydroduct®                  | See separate data sheets   |
| Pak Adhesive                | 5 litre can  |
| Lap Roller                  | Unit   |

### Equipment by Others

Soft broom, Stanley knife, brush or roller for priming.

### Physical Properties

| Property                     | Typical Results                 | Test Method                 |
|------------------------------|---------------------------------|-----------------------------|
| Elongation at max. load      | Long 134%<br>Trans 103%         | BS 2782 320 A               |
| Tear Resistance              | Long 77N<br>Trans 92N           | MOAT 27:5.4.1               |
| Peel Strength                | 105.4N                          | MOAT 27:5.1.3               |
| Tensile Strength of joints   | 130.6N                          | MOAT 27:5.2.2               |
| Moisture Vapour Permeability | 0.23 g/m <sup>2</sup> /24 hours | BS 3177: 1959 (75% RH/25°C) |
| Puncture Resistance          | 220 N 65mm                      | ASTM E154                   |
| Water Resistance (6m head)   | No penetration                  | MOAT 27:5.1.4               |
| Environmental Resistance     | Conforms                        | ASTM D543                   |

Bituthene 3000 complies with the relevant section of the following national standards:  
BS 8102:1990, Building Regulations (England and Wales) 1991 (amended 1994) clause C4.  
Building Regulations (Northern Ireland) 1994 (amended 1995) clause B2. Building Standard (Scotland) Regulations 1990, Regulation B2.1, G2.6.

*Details shown are typical illustrations only and not working drawings. For assistance with working drawings and additional technical advice please contact Grace Technical Services*

and exclude air. Adjacent rolls are overlapped 50mm minimum at side and ends and well rolled with a firm pressure, using a lap roller to ensure complete adhesion and continuity between the layers. On high walls it may be necessary to batten fix the membrane to prevent slippage.

### Repairs and Protection

Damaged areas to be repaired by patching with an oversize patch applied to a clean dry surface extending 100mm beyond damage and firmly rolled. The membrane should be protected against damage using Bituthene Protection Boards bonded to the membrane using Bitustik 4000 double sided tape or Pak Adhesive.

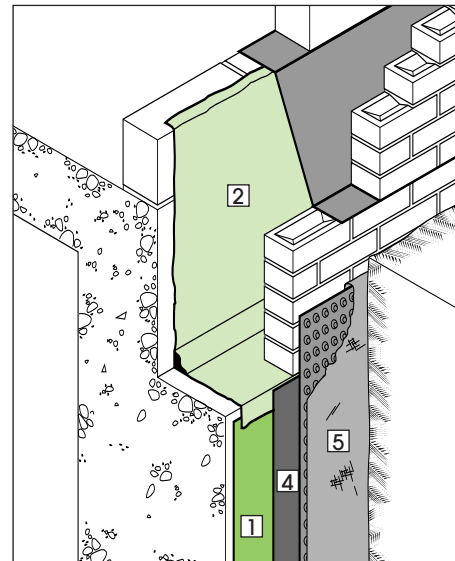
### Health and Safety

There is no legal requirement for a Material Safety Data Sheet for Bituthene 3000, Bituthene 3000 HC, Bituthene Protection Boards, Servitape, Lap Roller, Hydroduct or waterstops. For health and safety questions on these products please contact Grace Construction Products Limited. For Primer B1, Bituthene LM, Bituthene Mastic and Pak Adhesive read the product label and Material Safety Data Sheet (MSDS) before use. Users must comply with all risk and safety phrases. MSDS's can be obtained from Grace Construction Products or from our web site at [www.graceconstruction.com](http://www.graceconstruction.com).

### NBS Specification Clause

Refer to Clause 180 and 190.

#### Typical ground level termination detail



#### Key to diagrams:

- 1 Bituthene 4000 on Primer B2
- 2 Bituthene LM
- 3 Adcor 500S
- 4 Bituthene Protection Board
- 5 Hydroduct 220

**web** Visit our web site at [www.graceconstruction.com](http://www.graceconstruction.com)

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