

# GEOFABRICS®

Sustainable solutions



BROCHURE AND DATA SHEET

## Bitac®

Bitumen Impregnated Geotextile

[www.geofabrics.co](http://www.geofabrics.co)



# Tough, durable, flexible membranes for waterproofing and protecting materials in construction industries.

## DESCRIPTION

**Bitac® Tape** is designed as a joint sealant and reflective crack inhibitor, providing stress relief and waterproofing to concrete and asphalt pavements. **Bitac® Tape** is a composite membrane of non-woven geotextile and self-adhesive rubberised bitumen with high strength and high elongation properties. **Bitac® Tape** includes a release liner (interleaving) which is removed prior to use, for ease of application and handling.

**Bitac® DS** is used to seal the joints of concrete culverts and bridge decks. **Bitac® DS** is a woven polypropylene backing coated with a modified bituminous self adhesive compound. **Bitac® DS** includes a release liner (interleaving) which is removed prior to use, for ease of application and handling.

- Sticks and bonds rapidly and permanently to clean, dry surfaces
  - can be applied with or without primer\*
- Fast and simple to apply
- No special tools, heating or drying required
- Flexible, long lasting, in self sealing to minor substrate blemishes
- Can help prevent mould by sealing out moisture
- High puncture resistance and joint water pressure resistance
- Low water vapour transmission
- Withstands hot asphalt pours on roadways and car parks



## CASE STUDY DUKES HIGHWAY REHABILITATION

BORDERTOWN, SA.

The route services major destinations in Victoria and South Australia, with particular emphasis on freight, tourism and local communities. This placed a greater emphasis on our ability to provide a solution that was durable, long lasting with speed of installation.

**Bitac® Tape 250mm wide high strength multi laminated tape was specified and installed with Bitac® Primer. A total of 17,000m of Bitac® was supplied in 20m rolls to aid installation, with a purpose built rig used for efficient application.**

### STEP 1

Surface Preparation

### STEP 2

Application of a Bitac® Primer\*

### STEP 3

Placement of Bitac® Tape / Bitac® DS



## INSTALLATION GUIDELINES

### STEP 1

#### Surface Preparation for Bitac® Products

- Remove all dirt, water, grease and loose material from the surface.
- Cracks larger than 10mm wide should be cleaned and filled with an approved filler.
- Larger cracks or holes should be patched with a suitable slurry or hot or cold mix.

### STEP 2

#### Application of Primers\* Bitac® Primer / Bitac® DS Primer

- Prime the surface, using an applicable primer and a brush or roller, at an application rate of 4m<sup>2</sup>/litre (minimum).
- Coverage width should exceed the applied strip by 50mm each side.
- Allow the primer to touch dry.
- Any primed areas not covered by **Bitac® Tape / Bitac® DS** in 24 hours must be reprimed.

\* if required

### STEP 3

#### Placement of Bitac® Tape / Bitac® DS

- Remove the release paper at the start of the roll and place the chosen tape in position.
- Unroll by removing the release paper at the same time.
- Compress the applied tape to form the shape of the surface and remove any air bubbles.
- Roll all strips firmly into place to ensure a positive bond.

**Quality guaranteed...  
it is simple to install, has proven performance  
over many years, and is a cost-effective solution.**

# Bitac® DS

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## HIGH PERFORMANCE MEMBRANE FOR WATERPROOFING

### DESCRIPTION

A woven polypropylene backing coated with a modified bituminous self-adhesive compound. **Bitac® DS** includes a release liner (interleaving), which is removed prior to use, for ease of application and handling.

### USES

For waterproofing of bridges, foundations, basements, roofs, decks, lift shafts, pits, service reservoir roofs, car parks, subways, bathrooms, balconies or trafficked structures where a high shear resistance is required.

### FEATURES

- Sticks and bonds rapidly and permanently to clean, dry surfaces
- Fast and simple application
- No special tools, heating or drying required
- Flexible, long lasting, and self-sealing to minor substrate blemishes
- Can help prevent mould by sealing out moisture
- High puncture resistance and joint water pressure resistance
- Low water vapour transmission
- Withstands hot asphalt pours up to 180°C on roadways and car parks

### INSTALLATION DIRECTIONS

Ensure that the surface is free from dirt, dust and contamination, and if possible dry. Remove any loose material using a scraper or wire brush. To promote adhesion in cold weather, it is preferable to warm up the tape to at least 15°C before application.

Unwind and cut membrane to required length. Peel back about 50mm of the release liner and apply the product to the surface with firm pressure. Ensure intimate contact is made and that air is not trapped. Mould the membrane around bends and corner.

Using a cloth or small roller, ensure that all edges and overlaps are forming proper seals and are installed in a manner where they will be self-draining. Overlaps should be at least 25mm.

**Primer:** Porous surfaces such as concrete or brick may be primed prior to application. Always ensure volatile content of primer has evaporated before applying the membrane (dependent on ambient temperature, usually 10 to 20 minutes). Do not trap solvents between the tape and the surface being protected.



PROPERTIES	STANDARD/TEST	VALUE
<b>GENERAL CHARACTERISTICS</b>		
Thickness	ASTM D751	
Backing		0.30mm
Adhesive		1.35mm
Total		1.65 ± 0.15mm
Width		100 to 1,000mm
Length		20 m
Weight	ASTM D751	1.75 ± 0.15 kg/m <sup>2</sup>
Recommended Primer		Bitac® DS Primer
Colour		Black
<b>TECHNICAL CHARACTERISTICS</b>		
Breaking Strength	ASTM D412	≥ 12.0 N/mm
Elongation at Break	ASTM D1000	50%
Elongation at Break	ASTM D412	22 ± 3%
Adhesion Peel Strength	ASTM D1000, 24 h @23°C	4 N/mm
Puncture Resistance	ASTM E154, ASTM D1709	900 N
Water Vapour Resistance	ASTM E96	0.07 g/m <sup>2</sup> .h
Permeance	Water Method	1.61 x 10 <sup>-8</sup> g/Pa.m <sup>2</sup> .s
Water Penetration Joint	MOAT 27.5.1.4	Nil
Hydrostatic Pressure Resistance of Waterproofing Membranes	ASTM D5385	≥ 655 kPa.h*
Dimensional Stability	MOAT 27.5.1.6	
Longitudinal		-0.1%
Lateral		-0.2%
Application Temperature		15°C to 45°C
Service Temperature		-10°C to 95°C
Peak Intermittent Temperature		100°C #

\*Failure of testing jig occurred before failure of membrane.

# Polypropylene backing can withstand exposure to peak intermittent temperature up to 180°C in the application of asphalt paving.

STORAGE: In a cool, dry place, away from direct heat and sunlight .

The information given on this sheet is intended as a general guide only and should not be used for specification purposes. We believe the information to be accurate and reliable but do not guarantee it. We assume no responsibility for the use of this information. Users must, by their own tests, determine the suitability of the products and information supplied by us for their own particular purposes. No patent liability can be assumed.

# Bitac<sup>®</sup> Tape

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## BITUMEN ADHESIVE TAPE

### DESCRIPTION

A laminated bituminous adhesive tape which seals and waterproofs blemishes in surfaces. A non woven Polypropylene fabric backing laminated to a bituminous based compound of approximately 1.3mm thickness. Formulated using advanced polymer technology to achieve high levels of adhesion. **Bitac<sup>®</sup> Tape** includes a release liner (interleaving) which is removed prior to use, for ease of application and handling.

### USES

For the protection, sealing, and waterproofing of blemishes and gaps, mainly in road surfaces.

### FEATURES

- Sticks and bonds rapidly and permanently to clean, dry surfaces
- Fast and simple application
- Flexible, long lasting, self-sealing to minor substrate blemishes
- Stable in composition over a wide temperature range
- Accommodates vibration and movement of substrate
- Highly resistant to mineral acids, alkalis, and salts

### INSTALLATION DIRECTIONS

Ensure that the surface is free from dirt, dust and contamination, and if possible dry. Remove any loose material using a scraper or wire brush. To promote adhesion in cold weather, it is preferable to warm up the tape to at least 15°C before application.

Unwind and cut membrane to required length. Peel back about 50mm of the release liner and apply the product to the surface with firm pressure. Apply the adhesive compound side of the product to the surface, progressively removing the release liner from the compound as the tape is applied. Ensure intimate contact is made and that air is not trapped.

Using a cloth or small roller, ensure that all edges and overlaps are forming proper seals and installed in a manner where they will be self-draining. Overlaps should be at least 25mm.

**Primer:** Porous surfaces such as concrete should be primed with **Bitac<sup>®</sup> Primer** prior to application of the **Bitac<sup>®</sup> Tape**. Always ensure volatile content of primer has evaporated before applying the tape. Do not trap solvents between the tape and the surface being protected. Ensure the primer has dried but is still tacky before applying the **Bitac<sup>®</sup> Tape**.



PROPERTIES	STANDARD/TEST	VALUE
<b>GENERAL CHARACTERISTICS</b>		
Weight		1.4kg/m <sup>2</sup>
Thickness		1.65 ± 0.3 mm
Width		100 to 1,000mm
Length		20 m
<b>TECHNICAL CHARACTERISTICS</b>		
Break Strength	ASTM D412	≥ 8.0 N/mm
Break Strength	ASTM D1000	≥ 4.0 N/mm
Tear Strength	ASTM D1000	≥ 10 N
Application Temperature		15°C to 40°C (tape)
Service Temperature		5°C to 70°C
Peak Intermittent Temperature		80°C #

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# Bitac<sup>®</sup> & Bitac<sup>®</sup>DS

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## PRIMER

### DESCRIPTION

An oxidised bitumen dissolved in an aromatic hydrocarbon solvent. It may be brush or spray applied on metal or concrete surfaces.

### USES

Designed to promote adhesion of bitumen tapes to steel pipelines, concrete surfaces/culverts and fittings.

### FEATURES

- Fills surface irregularities for intimate contact of bitumen tape compound
- Promotes high adhesion
- Resists degradation in aggressive industrial and climatic conditions
- Fast drying
- Highly resistant to mineral acids, alkali and salts
- Can be brush or spray applied

### INSTALLATION DIRECTIONS

Prepare steel to St2 (power brushed) / AS1627 P.2 (minimum), if required. Edges on existing adjacent coatings should be chamfered to remove step down. Abrade approximately 100 mm band of pre-existing factory coatings and degrease using solvent (toluene) either side of the joint.

Note: concrete surfaces must be well cured and dry with all loose material removed from surface.

Thoroughly stir the primer in its container to ensure uniformity prior to use. Brush, sponge or spray apply an even coating at a rate of 4m<sup>2</sup>/L.





PROPERTIES	VALUE
<b>TECHNICAL CHARACTERISTICS</b>	
Specific Gravity	0.92
Solids Content	60%
Viscosity (AG:PT/T111)	200 ± 50 cP
Drying Time (Tack Dry)	10 - 15 min @ 20°C
Flash Point	> 24°C (closed cup)
Application Temperature	0°C to 55°C
Service Temperature	-20°C to 65°C

PACKAGING: 20 L

## MORE INFORMATION



### Bitac® Road Repair Tape

Material Safety Datasheet



### Bitac® Road Repair Tape Primer

Material Safety Datasheet

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