

## Torch applied 5 mm thick high performance reinforced elastoplastomeric polymer – bitumen bridge deck waterproofing membrane

### Uses

Testudo 30 membrane is characterised by a high resistance to puncture and is therefore particularly suitable for single layer waterproofing systems where high mechanical resistance is required, such as:

- Bridge decks
- Road ways
- Viaducts
- Carparks
- Foundations
- Earthquake-proof foundations
- Subways
- Tunnels

### Advantages

- Index membranes have over 25 years of proven performance throughout Australia
- Specifically selected for Australian conditions
- Low VOC - 7 grams per Litre
- Handles ponding and permanently wet conditions
- No curing times. Instantly waterproof
- Uniform thickness – eliminating likelihood of uneven application possible with liquid applied membranes
- 300 gram non-woven single strand spunbond polyester fabric reinforcement
- Excellent stability at both high and low temperatures
- Has excellent durability and flexibility
- Testudo 30 conforms to the Italian Motorways Company's specification

### Description

Testudo 30 is manufactured from distilled bitumen, selected for industrial use, with a high content of elastomeric and plastomeric polymer additives to obtain a phase inversion compound.

The performance of the compound is therefore incremented along with the durability and the resistance to high and low temperatures while the already optimum adhesive and impermeable qualities of the bitumen remain unchanged.

Testudo 30 is reinforced with a high weight (300 gm), isotropic, thermally fixed, rot-proof, non-woven single strand spunbond polyester fabric. This ensures a very strong membrane with notable ultimate elongation and an optimal

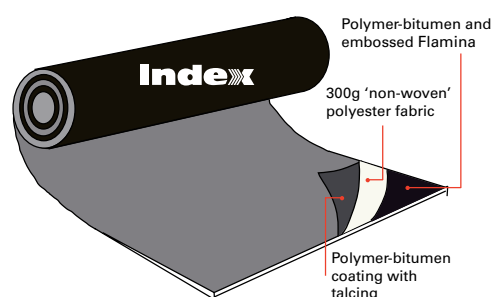
resistance to puncture and piercing.

The top face of Testudo 30 is coated with a uniformly distributed, fine, serigraphed talc, a patented treatment.

This enables quick unrolling and installation of the membrane with reliable and fast welding of the joints. The underside of the membrane is coated with Flamina and embossing. The Flamina is a plastic film that melts when torched. The embossing maintains the pre-tension and optimal retraction of the film and allows the torch a greater surface area for faster and more reliable installation.

### Technical support

Parchem offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance.



Testudo 30: 5 mm plain membrane

### Properties

<b>Product Code:</b>	742046
<b>Reinforcement:</b>	“Non woven” spunbond polyester fabric:
<b>Flow resistance at elevated temperature (EN 1110):</b>	120°C
<b>Tensile strength (EN 12311-1):</b>	longitudinal: 1100 N/50mm transverse: 1000 N/50 mm
<b>Ultimate elongation:</b>	longitudinal: 50 % transverse: 50 %
<b>Shear resistance:</b>	longitudinal: 500 N/50 mm transverse: 500 N/50 mm
<b>Resistance to tearing (EN 12310-1):</b>	longitudinal: 250 N transverse: 250 N
<b>Impermeability to water (EN1928 B method):</b>	60 kPa
<b>Flexibility at low temperature (EN 1109):</b>	-15°C

### Maintenance

No special requirements necessary. Any damage identified during normal inspections should be repaired or replaced as appropriate.

## Specification Clauses

Where so designated on the drawing, the surfaces shall be covered with a torch applied, polyester reinforced, polymer modified bituminous waterproofing membrane.

The membrane shall be reinforced with non-woven polyester fabric and be based on distilled bitumen and polymers. Such a product is Testudo 30 as supplied by Parchem. Areas shall be prepared and the membrane applied in accordance with the current Testudo 30 Technical Data Sheet, all materials used in conjunction with the Testudo 30 membrane must be approved by Parchem Construction Products.

Application of the membrane should be carried out by a competent applicator, well trained in the application of modified bitumen torch applied membrane systems.

For further detailed specification information refer to the appropriate Waterproofing Specification available from your local Parchem sales office.

## Application Instructions

### Surface preparation

All surfaces receiving the Testudo 30 membrane must be firm, dry, and free from contaminants and loose material. It must also be even and smooth, without any elements that could damage the membrane. Rough concrete must be "faired up" before commencing application. Contact your local Parchem office for suitable fairing products from our extensive range.

### Priming

Index Bitumen Primer should be applied to all the prepared surfaces prior to the application of the membrane and allowed to dry. The primer will take at least one hour to dry at temperatures 25°C and above. At lower temperatures allow additional drying time.

Index Bitumen Primer should be applied at the rate of approximately 0.13 l/m<sup>2</sup> to the surface to which Testudo 30 will be applied. The coverage rate for the primer will vary depending on the porosity of the surface being treated.

Primer may be applied by brush, roller or spray equipment, coverage must be uniform. Primed areas must be covered with the membrane on the same day.

## Application

Planning the installation of the membrane is important to ensure joints occur in suitable locations.

Testudo 30 membrane must be laid to allow side laps of 10 cm and end laps of 15 cm. Application of the membrane is by torch bonding using a suitable gas torch. The membrane is applied with the surface protected by the Flamina facing down towards the substrate, during the application of the gas flame the Flamina will melt away.

Beginning at the lowest point of the deck area and working in the direction of the slope towards the highest point. The first roll of membrane is unrolled completely and aligned, remaining rolls should be unrolled approx. halfway in order to properly align the 10 cm side lap and ensure the required 15 cm end lap is maintained.

Starting at the low point in the deck apply heat by the gas torch to the outer surface of the rolled portion of membrane while un-rolling, move the flame from side to side while unrolling the membrane by slightly pressing it onto the underlying surface. Avoid shifting the roll while unrolling. Follow the edge of the deck or the lap line. In order to have a smooth and even seal at the joint, apply the flame to the bleed out and the trowel simultaneously and spread the melted compound evenly to seal the joint.

Proceed torching the remaining membrane as described above, working your way to the highest point on the deck always maintaining the 10 cm side lap and 15 cm end lap.

On completion of the membrane installation all exposed perimeter edges must be mechanically fixed or terminated under a flashing.

### Protection

Application of the road asphalt may be applied directly to the completed membrane, the tarmacadam acts as one body with the waterproofing membrane: therefore the laying temperature must be high and the tarmacadam compacted immediately by a roller.

### Limitations

New concrete substrates should be allowed to cure for a minimum of 28 days prior to the installation.

# Index® Testudo 30

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## Supply

**Testudo 30:** 1 m wide rolls, 10 m long

**Product Code:** 742046

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**Index Bitumen Primer:** 20 litre Pail (8 m<sup>2</sup> per litre)

**Product Code:** 742105

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Note: no allowance has been made for wastage.

## Torch on accessories

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**Torch on internal corner 90':** PC 744060

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**Torch on external corner 270':** PC 744040

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**Torch on bituminous fillet  
1100mm:** PC 744050

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**Torch on drain drop in 80mm:** PC 744080

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**Torch on drain drop in 100mm:** PC 744070

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**Torch on pipe detailing collar  
40mm > 175mm:** PC 744010

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**Torch on domed grate 60mm >  
120mm:** PC 744090

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**Torch on spitter 100mm x 65mm:** PC 744020

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**Torch on one-way vent 60mm:** PC 744030

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**Torch on two piece one way vent  
90mm:** PC 771183

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**Pressure Seal Flashing 3mtr  
lengths:** PC 752016

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**Helastoring – Paver support pad:** PC 771197

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**Helastoring leveller:** PC 771198

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## Storage

Store in cool, dry conditions ie. not exceeding 25°C. Rolls must be stored on end and must NOT be stored lying down.

### Important notice

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

### Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.