

# Testudo and Testudo Mineral

**Elastomeric torch-applied membrane, reinforced with rot-proof non-woven single strand spunbond polyester fabric**

## USES

Testudo is used as a continuous waterproofing membrane for foundations, basements, tunnels, roofs etc. Testudo Mineral may be used as the top layer in a two layer membrane system or as a single roof membrane for both new and renovation work.

## ADVANTAGES

- Uniform thickness - eliminating the likelihood of uneven application possible with liquid applied membranes
- Reinforced with non woven, continuously extended spunbonded polyester which is rot proof, has excellent elongation and is resistant to heat, ageing, and puncture
- Excellent stability at both high and low temperatures
- Has excellent durability and flexibility even at low temperatures
- Available with either a plain or mineral finish

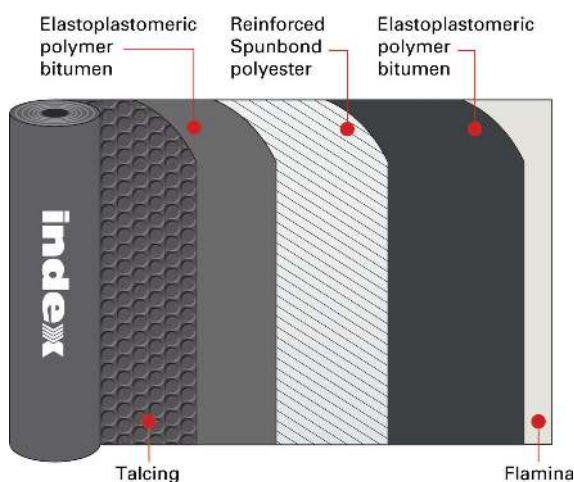
## DESCRIPTION

Testudo is a torch applied elastoplastomeric polymer-bitumen sheet membrane reinforced with a non-woven continuously extruded spunbonded polyester fabric. The bitumen compound is a mixture of distilled bitumen, plastomers and elastomeric polymers which give the membrane excellent durability and stability at both high and low temperatures. The lower face of the membrane is manufactured with a sacrificial "Flamina" polyethylene film which prevents sticking when the membrane is in storage.

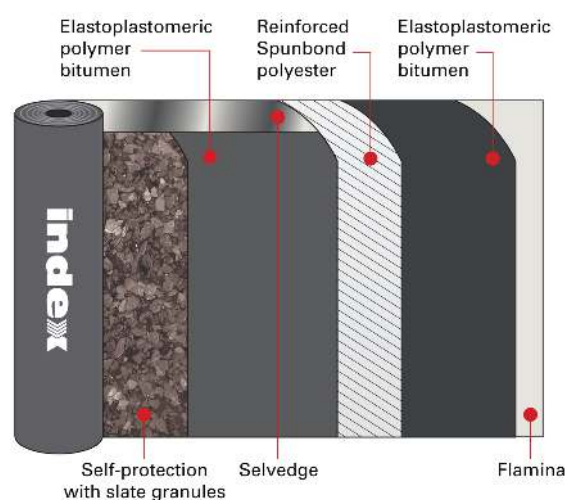
The lower face is embossed with small squares which assist in the rapid burn off of the "Flamina" and help vapour diffusion; also giving a visual indication of the correct melting temperature.

Testudo Plain has the top face treated with serigraph talc, which also works to make the product easier to unroll and apply.

Testudo Mineral has the upper face self protected with a layer of coloured ceramic granules. A 75 mm side selvedge is provided along one edge of the roll to allow for adequate heat welding of the side laps.



Testudo Plain



Testudo Mineral

## PROPERTIES

<b>Product code:</b>	Plain: 742040 Mineral Grey: 742060 Mineral Green: 742070
<b>Form:</b>	Torch applied reinforced sheet
<b>Size:</b>	Roll width 1 m, length 10 m
<b>Colour:</b>	4 mm Plain: Black 4.5 kg Mineral: Grey or Green
<b>Thickness:</b>	Plain 4 mm, Mineral 4.5 kg
<b>Reinforcement:</b>	160 gsm non-woven polyester
<b>Impermeability:</b>	- to water (EN1928) $\geq$ 60 kPa
<b>Tensile strength (EN18202)</b>	- longitudinal 750 N/50 mm - transverse 600 N/50 mm
<b>Ultimate elongation (EN12311-1)</b>	- longitudinal 50% - transverse 50%
<b>Cold flexibility (EN1109)</b>	-15°C
<b>Dimensional stability:</b>	Stable below 120°C
<b>Application temperature:</b>	5°C - 45°C ambient
<b>Service temperature (continuous ambient):</b>	-10°C - 100°C

## MAINTENANCE

No special requirements, 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, waterproofing membrane applied.

The membrane shall have a thickness greater than 4 mm, incorporate an elastoplastomeric non-woven spunbonded polyester reinforcing fabric and be based on distilled bitumen, plastomers and elastomers. Such a product is Testudo as supplied by Parchem. Areas shall be prepared and the membrane applied in accordance with the current Testudo data sheet paying attention to priming requirements.

## APPLICATION INSTRUCTIONS

### SURFACE PREPARATION

All surfaces to which Testudo is to be applied must be smooth and free from contaminants and loose material. Rough concrete must be "faired up" before commencing application. Contact your local Parchem branch for suitable products from our extensive range.

### PRIMING

Index Bitumen Primer should be applied at the rate of approximately 8 m<sup>2</sup> per litre to the surfaces to which Testudo will be applied. The coverage rate for the primer will vary depending on the porosity of the surface being treated. Allow the primer to dry for at least 1 hour at temperatures 25°C and above, until the primed surface is tack free. At lower temperatures allow additional drying time to ensure a tack free surface. Priming should only be carried out on surfaces that will be covered with the membrane on the same day.

### APPLICATION

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

The Testudo membrane must be laid to form end laps of 150 mm. Side laps must be 100 mm unless a mineral membrane top layer is being used in which case side laps are set at 70 mm for the mineral top layer and all layers below. If the membrane is to be spot bonded, full bonding must occur for 1 metre each side of the end laps.

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. Bonding is achieved by slowly unrolling the membrane whilst directing the flame at the underside of the roll and melting the bitumen by moving the gas torch from left to right. Side laps must be welded with care, correct welding will show a small bead of bitumen along the lap. Attention should also be given to end laps ensuring complete adhesion of the 150 mm overlaps.

On completion of the membrane installation all exposed perimeter edges must be sealed by the installation of a pressure seal.

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## PROTECTION

Testudo membranes are manufactured using polymer modified bitumen which has increased resistance to UV however the Testudo Plain is not recommended for long term exposure without some form of protective topping medium.

Testudo Mineral should be used as a cap or weathering sheet for use in non trafficable areas. Where the completed membrane is to be back filled such as with basement applications the Testudo should be protected from mechanical damage with the Emer-Proof Drain V drainage/ protection system, also available from Parchem.

## LIMITATIONS

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

## ESTIMATING

### SUPPLY

**Testudo:** Roll width 1 m, length 10 m

**Index Bitumen Primer:** 20 litre pail

### COVERAGE

**Testudo:** Approx. 9 m<sup>2</sup> / 10 m roll allowing for overlaps

**Index Bitumen Primer:** 8 m<sup>2</sup>/litre

Note: no allowance has been made for wastage.

## STORAGE

Store in cool, dry conditions ie. not exceeding 25°C.

Rolls must be stored on end and must not be stored lying down.



Testudo Mineral (Grey)



Testudo Mineral (Green)

## ADDITIONAL INFORMATION

Parchem provides a wide range of complementary products which include:

- concrete repair – cementitious and epoxy
- grouts and anchors – cementitious and epoxy
- waterproofing membranes – liquid applied, cementitious and bituminous sheet membranes
- waterstops – pvc and swellable
- joint sealants – building, civil and chemical resistant
- industrial flooring systems – cementitious and epoxy
- architectural coatings
- filler boards – swellable cork, bituminous and backing rod
- ancillary products

For further information on any of the above, please consult with your local Parchem sales office.

## IMPORTANT NOTICE

A Material Safety Data Sheet (MSDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the MSDS 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.