

# Vapordiffuser

**Elastoplastomeric membrane with deep bitumen underside rivets, to allow water vapour to diffuse and provide waterproofing in the base layer in multi-layer systems**

## USES

Vapordiffuser is used for both new construction and renovation work, on damp surfaces where blisters can form in the waterproof layer. It can be installed as a visible layer directly on concrete or to renovate an old bituminous layer which is no longer waterproof. The water vapour is drained through aerators which are easy to install in the Vapordiffuser membrane.

Vapordiffuser can be used on certain types of insulating panels that can move and damage the waterproof layer.

## ADVANTAGES

- Economical - eliminates a labour process
- Speeds up construction times
- Can be applied to damp / high moisture concrete
- Air-space for greater diffusion
- Greater bond area than vented systems
- Waterproofing membrane and vented sheet in one

## DESCRIPTION

Vapordiffuser is an elastoplastomeric polymer-bitumen waterproofing membrane with deep bitumen rivets on the underside strengthened with reinforced fibreglass mat for the diffusion of humidity on damp concrete surfaces, old bitumen waterproofing layers, or for isolating waterproofing layer from movements of insulating panels.

Vapordiffuser is designed to resolve the problem of vapour diffusion while guaranteeing an optimal adhesion in time, also on uneven surfaces. The underside of Vapordiffuser has a series of large bitumen bubbles covering approximately 35% of the surface with the exception of the overlapping side strip. The bubbles protrude from the membrane 3.5 - 4 mm and once they have been heated with the torch, become thick adhesive bitumen rivets that adapt the uneven substrate, forming a strong bond.

The membrane rests on the surface supported by the bituminous rivets and an air space is formed between the waterproof layer and the substrate with a series of voluminous and diffusing channels for the humidity which

are much more effective than those obtained using traditional perforated sheets. When torched, the supporting surface of bubbles increases slightly until it forms an adhesive area of approx. 40% of the supporting surface. The adhesive surface is greater than that which can be realised with perforated sheets (not more than 20%) and furthermore all of bitumen rivets adhere, while with the installation of perforated sheets on uneven surfaces there is a risk that the waterproofing layer will not adhere to a great deal of the substrate and be blown away by strong winds. Vapordiffuser bubbles are closer together than holes in perforated sheets, therefore adhesion and mechanical stress from the substrate are more uniformly distributed.

Vapordiffuser is a very thick membrane which forms a waterproof layer roughly 5 mm after installation (thickness of a perforated sheet is less than 1.5 mm) and so the layer is isolated better from movements of substrate. Furthermore, the greater adhesive surface makes it possible to install vapordiffuser on steeper sloping surfaces (up to 40%), without mechanical fixing. Vapordiffuser is strengthened with reinforced rot-proof fibreglass mat and both sides are coated with Flamina, a plastic film that melts when torched.

## SPECIFICATION CLAUSES

Where so designated on the drawings, surfaces shall be covered with a torch applied, fibreglass reinforced bituminous vapour barrier and waterproof membrane.



## MAINTENANCE

No special requirements, any damage identified during inspections should be repaired/replaced as appropriate.

## PROPERTIES

<b>Product code:</b>	742030
<b>Form:</b>	Torch applied reinforced sheet
<b>Size:</b>	Roll width 1 m, length 7.5 m
<b>Thickness:</b>	Approx 5 mm when laid
<b>Reinforcement:</b>	Reinforced fibreglass mat
<b>Watertightness (EN1928-B Method)</b>	60 kPa
<b>Tensile strength (EN 12311-1)</b>	
- longitudinal	300 N/50 mm
- transverse	200 N/50 mm
<b>Elongation (EN 12311-1):</b>	2/2%
<b>Resistance to tearing (EN 12310-1):</b>	70/70 N
<b>Flow resistance at elevated temperature: (EN 1110)</b>	120°C

## APPLICATION INSTRUCTIONS

### SURFACE PREPARATION

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

### PRIMING

Index Bitumen Primer should be applied to all prepared surfaces prior to application of membrane and allowed to dry. 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 rate of approx. 0.13 litres /m<sup>2</sup> to the surface to which Vapordiffuser 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

Vapordiffuser to be torch bonded to substrate along with the overlaps which are ready for bonding in the longitudinal direction of roll. Crosswise the membranes are abutted and not overlapped. When membranes have been installed, a strip of smooth membrane (Fidia, Argo P), at least 15 cm wide, should be bonded over traversal joints. The high quality of membrane itself is not enough to guarantee successful implementation or durability of waterproofing work in time. Therefore, it is advised to study installation methods, behaviour of the materials and connections between layers in depth, by carefully reading the Index handbooks: 'Application Manual', 'Composition and analysis of roofing protection systems' and 'Waterproofing'.

## PROTECTION

Vapordiffuser is not designed as a stand alone product, it must have an additional layer of membrane applied. If final membrane is exposed to UV, a mineral finish is required.

## ESTIMATING

### SUPPLY

<b>Vapordiffuser:</b>	Roll width 1 m, length 7.5 m
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### COVERAGE

<b>Vapordiffuser:</b>	Approx 7m <sup>2</sup> per 7.5 m roll
<b>Emer-Proof Drain V:</b>	2m x 20m roll (40m <sup>2</sup> )

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.

## 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.