

## Substrate Preparation (Existing)

Inspect existing concrete, brush any loose chippings, moss, mildew and remove. Existing flat areas must be clean, dry and free from any contaminants such as oil, grease and dust. Thoroughly clean and allow to dry. Remove all drain covers and clean outlets before applying the liquid coating.



Any small cracks and damaged areas can be repaired with Tecnoband reinforcing mat embedded in a coat of Desmopol membrane (**AFTER PRIMING**). Any significant cracks to be filled using Desmoseal PU Mastic or any approved Polyurethane based mastic, (**BEFORE PRIMER IS APPLIED**). **AVOID the use of silicone based mastics.**



## Priming the Concrete Substrate

**PRIMER PU-1000** is a mono-component, low viscosity, high solids content. It has been specifically designed to increase bonding to porous surfaces and improve the surface level of the substrates prior to the application of the Desmopol.

**PRIMER PU-1000** can be applied with roller or brush straight out of the tin at a coverage rate of 150-200ml per m<sup>2</sup>. Tin size is 5ltr (therefore minimum coverage of 25m<sup>2</sup> can be achieved).

**PRIMER PU-1000** is translucent with excellent bonding onto porous surfaces. **IMPORTANT: If the surface to be treated is very uneven, apply an initial coat of PRIMER PU-1000 mixed with mineral filings (ie silica sand) to level it.**

Tack time: 60 minutes (20C) – Wait until completely dry before applying Desmopol.

**Primer PU1000 must be used in all concrete, TPO, EPDM single ply and rubber outlets.**



## Joins and Splits

Tecnoband matting must be used on any joints, cracks or change of materials. Accelerated Desmopol is applied to the surface, the Tecnoband matting is rolled into the membrane (until Desmopol is drawn through), then another

coat of Desmopol is applied ensuring the matting is fully embedded. This must be repeated on all relevant areas before the main flat roof area is covered. Joints must be lapped 50 mm each side and on any change of material.



## Penetrations and Outlets

Penetrations through the roof are a typical source of water ingress. They are difficult to waterproof satisfactorily in traditional materials, but can easily be formed around such details with Tecnoband reinforcing mat, again ensuring the matting is fully embedded in accelerated Desmopol. If the detail is tight against the wall (like the picture on the right), it may be necessary to use a long handled (radiator) brush to enable access to the tight spots.



## Internal Outlets

Any internal outlets, apply the system into the pipe itself, ensuring that the junction between the waterproofing and the outlet pipe is encapsulated.

This will ensure that if the outlet backs up, water cannot creep under the existing waterproofing and into the building.



## Perimeter, upstands and flashings:

Before coating the main area, apply accelerated Desmopol to perimeter upstands and dry roll the Tecnoband matting (until the Desmopol is drawn through), then apply another coat of Desmopol ensuring the matting is fully embedded, this method is used to allow the required thickness to be applied (without slumping).

Desmopol is self terminating if the brickwork is okay, strike a line with tape and coat up to it, no lead flashing is required. A termination bar similar flashing is required if the brickwork is in poor condition. **These areas will be coated again when the main area of the roof is coated.**

## Accelerating Desmopol



**When first opening Desmopol tins, the product must be stirred thoroughly ensuring any settlement at the bottom is mixed in.**

Desmoplus Accelerator is then added at the exact ratio of 110ml (of Desmoplus Accelerator) per litre of Desmopol (or 2ltr/25kg tin or 500ml/6kg tin of Desmopol) and mixed at a slow speed to avoid air entrapment/bubbles. Make sure the Desmoplus Accelerator and Desmopol are thoroughly mixed together before applying (should take a couple of minutes).

**\*For measurements see chart on page 6.**

### PLEASE NOTE:

*You have approximately 20-30 minutes working time for mixed product. Please only mix what you think you will use in this time, ie detail work it is best to mix a couple of litres at a time until you get familiar with the working time. Once applied the Desmopol will be touch dry in 30-40 minutes.*

## Applying the Desmopol Membrane

Apply accelerated Desmopol to the whole area of the roof in 1 layer using a roller (solvent resistant is best). Desmopol is self-levelling, do not overwork the product, its easier to work out the coverage for the mixed tin, pour and spread by roller. Product to be installed at 1.8kg/m<sup>2</sup> evenly or a thickness of 1.4mm minimum.

Any big variation in levels should be reinforced to make sure the product is not applied too thin on raised areas (big variations in thicknesses will cause weak spots on any thin areas).

On completing inspect for any pinholes and apply another thin layer if required. Drying time 1-2 hours (depending on temperature and humidity). Application temperature range -5 °C to 35°C.



## Topcoat and anti-slip

### TECNOTOP 2C – TOPCOAT APPLICATION

The use of Tecnotop 2C is recommended to increase UV stability, for trafficable areas or achieve longer guarantee.

Tecnotop comes in 2 parts (4kg + 1kg tins) which must be mixed completely and applied at a ratio of 200grs per sqm in one layer, to cover around 25sqm per pack.

Tecnotop 2C must be applied no later than 48 hours after Desmopol was applied and on a clean and dry surface.

### BALCONIES, WALKWAYS AND ANTI-SLIP SURFACES

To achieve the desired surface, we have 3 options which need to be considered depending on the level of traffic and aesthetic required

**Tecnoplastic** must be mixed with the mixed Tecnotop 2C and applied with a roller onto Desmopol.

**Silica sand** to be broadcasted onto the Tecnotop to cover completely the area. Allow the Tecnotop to dry and brush the loose sand. For a stronger bonding it is recommended to give an additional coat of Tecnotop 2C over the silica sand, once the first layer is completely dry.

**Mineral slate granules** to be broadcasted onto the Tecnotop to cover completely the area. Allow the Tecnotop to dry and brush the loose granules. For a stronger bonding or higher gloss finish it is recommended to give an additional coat of Desmopol T clear coating, over the slates granules, once the first layer is completely dry.

### DESMOPOL IN VERTICAL SURFACES – DESMOTHIX LIQUID

When Desmopol needs to be applied to vertical surfaces, Desmothix liquid will be used to facilitate application. Desmothix liquid will provide Thixotropic properties to Desmopol which will allow it to be applied easily without runs and drops.

Desmothix liquid comes in 1Lt tins and can be mixed up to 1Lt per 25Kg of Desmopol. Usually adding 250ml per 25kg drum is enough to reach the desired consistency.

If no Desmopol Accelerator is used, Desmopol must be applied in 2 layers of a maximum 1kg per layer.

When mixing Desmopol Accelerator and Desmothix liquid at the same time, the Desmopol Accelerator must be mixed first at the same ratio of 110ml per litre of Desmopol and later mixed with a maximum of 250ml of Desmothix liquid for 25kg drum or 60ml per 6kg tin.

Should you require a further site visit or more information, please contact the Eagle Technical Department on 07880 230253.

## Desmopol

**Desmopol** is a single component, cold-applied, moisture-triggered polyurethane membrane. It cures to form a seamless, tough and elastic waterproofing solution for exposed roof areas, inverted or green roofs.

It can be used on new or existing roofs and is extremely beneficial in over coating existing failing surfaces. This completely removes the requirement to replace the timber deck, saving cost and time on site.

The substrate must be dry prior to application, and inspection of the boards underneath must be undertaken prior to installation by the contractor and must be in good condition (not sodden or rotten).

### GREAT ADHESION TO MOST SUBSTRATES:

OSB / plywood, GRP / fibreglass systems, roofing felt, brickwork, metal, lead, asbestos, single ply. For single ply, please check the type of membrane and contact the Eagle Insulations technical department, as primer may be required.

## Characteristics / Advantages

- Easy and quick application
- Cost effective – provides an expected cycle extension of failing roofs in excess of 25 years
- Seamless membrane with over 600% elongation
- Vapour permeable
- Resistant to extreme temperatures: -40°C to 80°C

PROPERTIES	VALUES
Specific gravity (kg/m <sup>3</sup> )	1.320 ~ 1.420 (ISO 1675)
Dry extract at 105°C (% weight)	>90 (EN 1768)
Ashes at 450°C (% weight)	42 ~ 47 (EN 1879)
Application temperature range	-5°C ~ 35°C
<b>Storage recommendation</b>	1 year at temperature +5°C ~ 35°C
Resistance to water vapour transmission (g/m <sup>2</sup> * hour)	0,8
Tensile Strength (at 23°C) (N/mm <sup>2</sup> – MPa)	5 ~ 7
Concrete adherence (N/mm <sup>2</sup> – MPa)	>2
Hardness	>75 (Shore A)
Drying time	30 minutes tack free, 1 ~ 2 hours (depending on temperature and humidity), 4 hours trafficable. Fully cured 24hrs
Recoat Time	From 2 hours to 24hrs
Yield	1.5 to 2kg/sqm min 1.4mm Maximum in 1 layer 2kg
Elasticity (at 23 °C)	±600% ~ ±750%

*PLEASE NOTE: Temperature and humidity conditions may affect the curing times.*

*Work out the area you will cover with the 27kg tin of mixed product (please check coverage rates for different guarantees available), do not spread the product too thin.*

*Packaging Available: 25kg and 6Kg drums Desmopol membrane + 2Lts & 500ml Desmopol Accelerator.*

*In case of accidental damage to the Desmopol waterproofing system, it can be repaired easily by using a piece of Tecnoband Mat, embedded in Desmopol.*

**Desmoplus Accelerator Chart**

<b>DESMOPOL QUANTITY FULL TINS</b>	<b>DESMOPOL QUANTITY IN LTRS</b>	<b>DESMOPLUS ACCELERATOR IN LTRS</b>
25kg drums		2Lts - full tin
6kg drums		Full Small Tin
	5Lts	550ml
	4Lts	440ml
	3Lts	330ml
	2Lts	220ml
	1Lt	110ml

**\*Mix thoroughly on slow speed to ensure Desmoplus Accelerator is mixed with Desmopol completely**