

# SILCOR<sup>®</sup> 580 Membrane

Low-odour, heavy-duty-trafficable, polyurethane waterproofing membrane

(to replace ULTRAURE™ A 80 Membrane)

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## Product Description

A tough, resilient, two-part, polyurethane elastomer membrane producing long-life waterproof protection. It is a premium grade, low VOC elastomer using the latest technology to provide long-life, protective barriers to prestigious construction projects.

SILCOR 580<sup>®</sup> is a certified Class III membrane and is compliant to AS4858:2004: "Wet Area Membranes", when applied in accordance to AS3740:2010 "waterproofing Wet Areas in Residential Buildings". SILCOR 580 is tested to AS4654.1 to ensure compliance with the NCC for external waterproofing in Australia.

## Product Advantages

- Fast application by 5mm notched squeegee in 1 coat, or by roller in 2 or more coats Long-life, permanently flexible
- Total adhesion – no water tracking Fully monolithic structure
- High resistance to puncture and damage High resistance to ponded water
- UV-resistant (colour stable with SILCOR Top Coat 80 applied over) Wide service temperature range (–40°C to 100°C)
- Hard-wearing, non-slip surface
- Designed to cope with both pedestrian and vehicle (car) traffic
- External Above Ground – meet the requirements of **Australian Standard AS 4654-2012**
- Internal Wet Areas – meet the requirements of **Australian Standard AS 3740-2010**

## Uses

SILCOR 580 Membrane and SILCOR Top Coat 80 system are suitable for:

- Exposed roofing, decks and podiums Car parks and ramps
- Compactor room floors, plant rooms and wash rooms Sport stadium service-ways, plats and vomitories
- SILCOR 580 Membrane may be used alone as a protective, impact-resistant, resilient, internal flooring to laboratories, sports centres and gymnasiums.
- The SILCOR 580 Membrane system can be applied to most clean, dry, stable surfaces including concrete, precast, fibre cement sheet, concrete masonry, brick, render, metals and some plastics.

## System Components

- SILCOR 580– two-part PU membrane
- SILCOR Primer BS– 1-part solvent based PU primer for dry cementitious, masonry, metal and timber substrates
- SILCOR Primer BW Clear/ EPOCOTE™ F100W Clear – 2-part, water borne epoxy primer for green, damp or dry cementitious, masonry and metal substrates
- SILCOR Primer BW Grey/ EPOCOTE F100W Grey – 2-part, water borne, filled epoxy primer for green, damp or dry cementitious, masonry and metal substrates, or poor quality/damaged concrete
- SILCOR Top Coat 80 – 2-part, solvent based, UV stable PU, protective top coat
- SILCOR LM PU Sealant – 1-part polyurethane sealant for detailing and joint sealing

## Preparation

Substrates must be structurally sound, smooth, clean and dry. Remove all dust, laitance, loose matter, oils, curing compounds, form release agents, or other contaminants.

Concrete should have a minimum strength grade of 25 MPa, and be moist-cured as required by AS 3600. Minimum age of concrete at time of waterproofing application should be 14 –28 days depending on concrete thickness and GCP primer being used.

Use SILCOR LM PU Sealant to fill joints, cracks, gaps and form angle fillets to internal corners or penetrations. Allow minimum 24 hours of curing for sealant.

### Note

- Resurfacing of previously painted surfaces will require total removal of existing coatings to expose bare, clean substrate. Machine grinding is the preferred method.
- Mix SILCOR 580 Polyol component with a slow speed stirrer before use, without entraining air.
- Preferred application temperature range is between 5 °C and 30 °C.

## Application

### Priming

To inhibit pin-holes and seal porous surfaces where substrate moisture content is less than 5%, use one coat of SILCOR Primer BS at minimum 0.3 kg/m<sup>2</sup> (0.3 litre/m<sup>2</sup>) and allow to dry tack free.

Use SILCOR Primer BW Clear/ EPOCOTE F100W Clear to seal any damp or green concrete with moisture content less than 10%. Roughen PVC or stainless steel and wipe with Xylene before priming with SILCOR Primer BW Clear/ EPOCOTE F100W Clear. Allow primer to dry tack free.

### Mixing

Measure each individual SILCOR 580 Membrane Polyol and Isocyanate component accurately by weight into a clean container and mix thoroughly with an electric stirrer (300 rpm). Preferred material mixing and application condition is 10 °C – 30 °C and RH <85%.

## Typical Properties

PROPERTY	TYPICAL VALUE	TEST METHOD
Colour	Grey	-
Specific Gravity	1.2 g/ml	-
Solids % Vol	> 97	-
Cure Time – Ready for Flood Test, Tiling, Topping	12 hours	
Mix Ratio (w/w)	1: 1	-
Pot Life (20°C)	30 minutes	-
Tensile Strength	> 8.8 MPa	-
Elongation	> 350%	ASTM D412
Shore A Hardness	80 ± 5	ASTM D2240
Chemical Resistance	Excellent	ASTM D543

## Application

### SILCOR 580 Membrane

Apply SILCOR 580 membrane to primed and previously detailed areas, at or above the minimum required thickness in:

- One coat by 5mm notched trowel/notched squeegee;
- Two or more coats by roller, allowing to cure 12 to 24 hours between coats.

Required minimum thickness is dependent on installation area, type of use of the area, topping or membrane protection being employed and product warranty period required, and will be specified in the GCP project specification or architect's specification. Where not specified, a minimum total Dry Film Thickness (DFT) of 1.5mm must be employed (total Wet Film Thickness (WFT) = 1.8mm/approximately 2.4kg/m<sup>2</sup>).

Test WFT during application using a WFT gauge and adjust applied thickness accordingly. Continue membrane to turn-ups by a minimum 100mm above finished surface level, or as detailed in project specification.

Where a high rating non-slip finish is required, apply membrane by a two stage process as follows:

1. Apply membrane as described above and allow to cure for a minimum 12 hours to maximum 24 hours.
2. Apply an additional coat at 0.4mm WFT and broadcast with non-slip aggregate while still wet. Allow to cure for a minimum 12 hours, remove loose aggregate and apply SILCOR Top Coat 80 as detailed below.

## SILCOR Top Coat 80

Apply SILCOR Top Coat 80 by roller or air-less spray system in 2 coats at minimum 0.3kg/m<sup>2</sup> (minimum 0.15kg/m<sup>2</sup> per coat). Allow 24 hours curing before opening area to foot traffic. Allow 5 days curing before allowing vehicle traffic. Where non-slip aggregate broadcast has been employed, top coat requirement will increase significantly (0.6 to 0.9 kg/m<sup>2</sup>).

### Surfacing

The finished SILCOR 580 Membrane may be subjected to foot traffic 8 hours after installation but 5 days curing should be allowed before vehicles are driven over the surface.

If required for functional or aesthetic reasons, areas of SILCOR 580 Membrane may be covered with optional surfacing systems, after full curing.

- Tiles

Consult GCP Technical Service for details.

- Landscaping

Use PROTECTOBOARD or RAPID-DRAIN, followed by landscaping.

- Rigid Surfaces

Use two layers of 0.2mm polyethylene slip-sheet under concrete toppings. Lay paving slabs supported on mortar bed.

## Supply and Packaging

PRODUCT	PACKAGE SIZE
SILCOR 580 Membrane	36 kg set
SILCOR Primer BS	17 kg drum (17.9 L)
SILCOR Primer BW Clear/EPOCOTE F100W Clear – Resin	10 L pail
SILCOR Primer BW Clear/EPOCOTE F100W Clear – Hardener	10 L pail
SILCOR Primer BW Grey/EPOCOTE F100W Grey – Resin	10 L pail
SILCOR Primer BW Grey/EPOCOTE F100W Grey – Hardener	10 L pail
SILCOR LM PU Sealant	600 ml sausage
Reinforcing PE Fabric	100/150/300mm x 50m roll
SILCOR Top Coat 75– Resin	15 kg drum (13.2 L)
SILCOR Top Coat 75 – Hardener	3 kg can (3.0 L)
PROTECTOBOARD	1830 x 1220 x 3mm
PROTECTOBOARD HS	1830 x 1220 x 4mm

RAPID-DRAIN

15240 x 1220 x 10mm

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## Shelf Life

Do not store product exposed to weather and sun. When kept in a cool, dry, protected area, sealed pails have a 12-month shelf life, but once opened may solidify within a few days.

## Clean-up

Use MULTITEK Xylene before curing. Exercise care when using solvent, review all Material Safety Data Sheet (MSDS) before use.

## Health and Safety

Read and understand the product label and Safety Data Sheet (SDS) for each system component. All users should acquaint themselves with this information prior to working with the products and follow the precautionary statements. SDSs can be obtained by contacting your local GCP representative or office.

## Limitations

Minimum applied thickness required is dependent on intended areas of application and warranty period desired. Consult your GCP sales representative or the GCP Technical Department for further information.

Cure rate is affected by temperature. High temperatures will cause rapid cure and reduced pot life. Low temperatures will significantly extend cure time. Information contained in this document does not cover all possible application scenarios or imply product suitability for an application.

Please contact your local GCP representative or the GCP Technical Department for further information.

## Warranties

GCP and contractors recognised by GCP as experienced in the application of GCP products will provide product warranties for individual projects. Product warranty periods offered are dependent on project details and complexity. Requests for very long product warranty periods may necessitate increased membrane thicknesses to ensure longevity. Contact your local GCP representative for further details.

Release Date: 12/Sep/2021. The information contained in this product data sheet supersedes all previous versions.

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