

SILCOR[®] 880 HVR System

Hand-applied elastomeric coating as part of an electrical insulation system in critical structures and civil works

Product Description

Hand-applied polyurethane elastomeric coating providing excellent waterproofing and electrical insulation properties.

Features

- SILCOR[®] 880 HVR System is a hand-applied system consists of a hand-applied coating SILCOR VR80 and a hand-applied SILCOR 880 HVR as the base membrane.
- SILCOR 880 HVR membrane works in supplementary to the repair of SILCOR 880 SVR membrane.

Preparation Before Repair

Surfaces must be sound, smooth and free from dust, laitance, loose matter, oil or other contaminants.

Concrete should be cured 28 days and render 7 days.

Use SILCOR LM PU sealant to fill joints, cracks, gaps and form angle fillets to internal corners or penetrations.

Resurfacing of previously painted surfaces and defects areas will require total removal of existing coatings to expose bare, clean substrate. Machine grinding is the preferred method.

Mix the individual components of SILCOR 880 HVR System (SILCOR 880 HVR membrane and SILCOR VR 80 respectively) with a clean dry stirrer before use.

Preferred application temperature range is between 5 °C and 30 °C.

Application

Priming

See project-specific Application Method Statement (AMS) for detailed requirements. Generally, for concrete substrates, use wet, wet-abrasive e.g. high pressure water jet, rotary head water blaster or dry-abrasive blasting e.g. mechanical grinding to remove laitance, etc.

Patch concrete defects using high strength (minimum 25MPa), non-shrink, repair mortar and allow to cure fully. Fill all joints, cracks, gaps and form angle fillets in internal corners or penetrations with Silcor LM PU sealant. Blast or mechanically clean steel substrates to a 90µm surface profile.

Apply Silcor VR80 on the substrate as a primer at a minimum dry-film thickness of 0.6mm/m with a minimum consumption of 0.6Kg/m², dependent on substrate condition, application technique and weather. More is required for porous concrete before application of Silcor 880 HVR.

Mixing

Measure each individual SILCOR 880 HVR membrane Membrane Polyol and Isocyanate component accurately by weight into a clean container and mix thoroughly with an electric stirrer (300rpm). Preferred material mixing and application condition is 5°C – 30°C and RH < 85%.

Application

SILCOR 880 HVR Membrane

Apply in one coat by 5mm notched trowel/notched squeegee or Two or more coats by roller, allowing to cure 12 to 24 hours between coats. Typically a DFT of 1.9mm SILCOR 880 HVR membrane and a min 0.6mm DFT Silcor VR80 primer (Total System DFT min 2.5mm) is required for electrical insulation applications specifying a volume resistivity of 5000×10^{11} ohm-cm.

3.04kg/m² of Silcor 880 HVR membrane provides coverage of 1m² at 1.9mm coating thickness.

Specified minimum DFT required will be detailed in GCP's project-specific AMS.

Surfacing

The finished SILCOR 880 HVR Membrane may be subjected to foot traffic between 12 hours and 24 hours after installation but 5 days curing should be allowed before vehicles are driven over the surface.

Where colour stability is required in sun-exposed applications, apply our aliphatic, UV-stable wear and tear topcoat protection, SILCOR Top Coat

80 where colour stable protection and a non-slip finish is required.

Packaging

SILCOR 880 HVR Membrane

(18Kg Polyol + 18Kg ISO) 36Kg per set

SILCOR VR 80

(20Kg Base + 10Kg Hardener) 30Kg per set

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 at 25°C, 60% RH, but once opened, may solidify within a few days.

Clean Up

Use methylated spirits before curing. Exercise care when using solvent, review all Safety Data Sheet 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 and in some cases from our web site at gcpat.com.

Typical Properties

PROPERTY	TYPICAL VALUE
Colour	Grey
Specific Gravity	1.2 g/mL
Solids % Vol	> 97
Cure Time – Ready for Flood Test, Tiling, Topping	48 hours
Mix Ratio (w/w)	1:1
Pot Life (20°C)	30 minutes

gcpat.com | For technical information: asia.enq@gcpat.com

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

SILCOR is an trademarks, which may be registered in the United States and/or other countries, of GCP Applied Technologies, Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2023 GCP Applied Technologies, Inc. All rights reserved.

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA

GCP (Singapore) Pte. Ltd, 25 Tanjong Penjuru, Singapore 609024.

This document is only current as of the last updated date stated below and is valid only for use in Singapore. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.sg. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2025-05-15

gcpat.sg/solutions/products/silcor-liquid-waterproofing/silcor-880-hvr-system