



PRODUCT INFORMATION

TECHNICAL DATASHEET

1/5/2017

Introduction

VERDISEAL™ HA (RAL 7046 Grey) Part A Experimental Polyol with VERDISEAL HA Pre-polymer Part B is a fast-cure, hand applied, solvent free, two component elastomeric membrane offering excellent mechanical characteristics.

This liquid waterproofing system exhibits high elongation and excellent tensile strength values allowing the ability to accommodate movement and bridge concrete shrinkage cracks. Application of this fully adhered, seamless membrane can prevent water tracking between the membrane and the substrate and has the ability to seal even the most intricate of detailing and designs. It also offers excellent wear, impact and tear propagation resistance along with its dynamic crack bridging properties.

The prime function of VERDISEAL™ Membrane HA is to waterproof exposed structures. VERDISEAL Membrane HA has been designed to adhere to substrates such as concrete, steel, timber and asphalt when used with the correct primer. It is approved for use on zero pitch, completely flat and sloping roofs and for its use in inverted roofs, podium decks, blue roofs, balconies and terraces, etc. It can be re-coated or trafficked after only a few hours.

VERDISEAL™ Membrane HA is supplied in pre-weighed packages and all of each component must be mixed together using a mechanical drill and paddle to ensure complete mixing is achieved. As the system does not require specialist mixing equipment it makes it suitable for small areas or areas inaccessible to the specialist spray equipment required for VERDISEAL Membrane SG. VERDISEAL Membrane HA retains a high degree of elasticity even at extremely low temperatures and does not soften at high temperatures.

Component Properties

Part A Component

Appearance
Viscosity at 25°C
Specific Gravity at 25°C

VERDISEAL™ HA (RAL 7046 Grey) Part A Experimental Polyol
Grey liquid at 25°C
1100 - 1500 cps
1.04 - 1.08

Part B Component

Appearance
Viscosity at 25°C
Specific Gravity at 25°C

VERDISEAL™ HA Part B Experimental Isocyanate
Amber liquid at 20°C
100 - 200 cps
1.21 - 1.23

VERDISEAL HA (RAL 7046 Grey) Part A Experimental Polyol / VERDISEAL HA Pre-polymer Part B

Surface Preparation

All surfaces should be prepared in accordance with the VERDISEAL™ specifications and surface preparation guide. All high points must be ground down.

Surfaces must be completely dry and have been sealed with the correct primer which must be fully aggregated with 0.3 – 0.6mm approved kiln dried crystallized quartz.

The temperature of the substrate must be at least 3°C above the dew point temperature at the time of application and until the membrane has cured tack free.

If there are any concerns regarding suitability, further advice can be obtained by contacting Dow Technical Department and/or a small trial area should be applied and tested for suitability.

Mixed System

Mixing Ratio	2.16 : 1 by weight Part A (Polyol) to Part B (Isocyanate)
Pot Life at 20 °C	Typically 15 minutes working time
Colour	Grey
Solids Content	100% as formulated
Dry Film Thickness	2mm
Theoretical Coverage	6 m ² / 15 kilo kit @ 2mm
Overcoat Time at 20 °C	4 Hours

These are typical values and should not be construed as specifications.

Membrane – Typical Properties

Property	Test Method	Value	Unit
Shore Hardness	ISO 868	75-80	°A
Tensile Strength	ISO 527 type 5 @ 2.5 mm	14.5	MPa
100% Modulus	ISO 527 type 5 @ 2.5 mm	3.4	MPa
Elongation at Break	ISO 527 type 5 @ 2.5 mm	310	%
Angle Tear Strength	ISO 34 method B (unnicked)	38	N/mm
Density		1.05	g/cm ³

These are typical values and should not be construed as specifications.

Processing Details

VERDISEAL™ HA (RAL 7046 Grey) Part A Experimental Polyol must be fully homogenised in case minor settlement has occurred during storage by pre-mixing using an electric drill and paddle.

All of VERDISEAL™ HA Part B Experimental Isocyanate must then be added to Part A and mixed for 60 – 90 seconds using a high torque slow speed electric drill and paddle. This involves working the paddle around the sides and the bottom of the pail to ensure a streak-free, homogenous material remains. Keep the mixer blade fully submersed in the resins to help minimise the introduction of air bubbles. Extended mixing times can result in reduced pot-life and excessive aeration. Higher temperatures will speed up chemical reaction time of the materials.

Application Details

All of the mixed material should be deposited immediately onto the prepared surface and spread evenly using a serrated rubber squeegee or notched trowel, and then back rolled with a spiked roller. It is important that a minimum thickness of 2mm is applied over all areas especially high points, edges and detailing. Over-coating of the membrane can take place within minimum 4 hours and maximum 48 hours of the application at 20°C. Ensure that the membrane does not get contaminated between application and over-coating. VERDISEAL™ HA (RAL 7046 Grey) can be used under the Dow Wearcoat and Topcoat range of materials.

If applying membrane onto membrane, and the first coat has been allowed to cure for more than 48 hours then clean, lightly abrade, solvent wipe and prime with VERDISEAL™ Wearcoat (fully aggregated), to ensure adequate adhesion is achieved. VERDISEAL Membrane HA may be applied down to a temperature of 5°C providing the temperature is rising and at least 3°C above dew point during application and curing period.

Additional Information

The workability and cure of reacting materials will be influenced by substrate and ambient temperatures. It is recommended that VERDISEAL™ HA (RAL 7046 Grey) be used by professional and experienced resin flooring applicators only. Decant newly mixed material into smaller containers or onto the substrate and spread to help prolong working time, as mixed material in volume will set quickly. Applied membrane should be rain resistant after 3 hours at 20°C.

Storage and Handling

		Shelf life
Polyol Component	Store in tightly sealed containers and out of direct sunlight, at a temperature of 10 - 30°C. Raise to the processing temperature and mix well before use. Avoid contact with moisture. Storage at low temperatures may result in freezing of the polyol component, should this occur it should be melted out by raising to the processing temperature and mixed thoroughly before use.	12 months
Isocyanate Component	Store in tightly sealed containers and out of direct sunlight, at a temperature of 10 - 30°C. Avoid contact with moisture. Storage below the recommended minimum temperature may result in freezing of the Isocyanate. If the Isocyanate does not fully melt out when raised to the processing temperature it may be necessary to re-melt at a temperature of 60 - 70°C following the procedures laid down in the information sheet 'Safe Handling – Pure, Modified and Polymeric MDI' Form No. 109-01224X-1009P&M.	12 months

More detailed information on the storage and handling of polyurethane components can be obtained by contacting Dow Technical Service Department.

Packaging

Part A Component
Part B Component

VERDISEAL™ HA (RAL 7046 Grey) is supplied in 5 and 10 kilo pre-weighed kits.

6.83 Kgs or 3.42 Kgs
3.17 Kgs or 1.58 Kgs

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Safety Considerations

Safety Data Sheets (SDS) are available from The Dow Chemical Company (Dow). SDS are provided to help customers satisfy their own handling, safety and disposal needs, and those that may be required by locally applicable health and safety regulations. SDS sheets are updated regularly. Therefore, please request and review the most current SDS before handling or using any product. Copies of the SDS are available on request through the nearest Dow Sales office.

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Contact information:

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