



Viking
SilCoat

Applicator handbook

Roofspec
Viking

Taking care of detail

www.vikingroofspec.co.nz

Introduction

Installation of Viking Roofspec Silicone Roof Coating system must only be undertaken by trained, licensed installers. Further product and specification information is available from Viking Roofspec.

www.vikingroofspec.co.nz or www.vikingroofspec.co.nz/details-documents

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A Note About Safety

All work should be undertaken in line with current occupational safety and health legislation.

You are responsible for your personal safety and the safety of those around you. Viking Roofspec urge you to take the time to understand your obligations and to plan and undertake your work safely.

Working at Heights

“Roof work should only be undertaken by persons who have the knowledge, experience and resources necessary for the work to be completed safely.”

From Guidelines for the provision of facilities and general safety in the

Construction Industry to meet the requirements of the HEALTH AND SAFETY IN EMPLOYMENT ACT 1992 & REGULATIONS 1995

Hazardous Materials

Some materials used with this system are toxic. Safety information regarding these can be found in appropriate Material Safety Data Sheets (MSDS) available from Viking Roofspec. Correct personal protective equipment should be used where applicable.

For more information regarding requirements, please contact WorkSafe. Information online is available at: www.worksafe.govt.nz/topic-and-industry/working-at-height/

Technical Data

Data Sheet		
Weatherability	Excellent durability, colour stability and chalk resistance.	
Toxicity	Not tested or certified in NZ for use in contact with edible substances or potable water. Has NSF P151 certification in USA.	
	ASTM D412	SilCoat Immersed in Water @ 150°F (66°C) for 1 year per ASTM D471
Tensile strength	550± 10psi (3.79 ± .07 MPa)	463 psi (3.19 MPa)
Tensile elongation	150% 10	125%
Tensile permanent set at break	Approx. 1%	0%
Hardness	ASTM D624 Die C 21 pli (3.8kg(f)/cm)	56 Shore A
Water vapor permeance	ASTM D2240 55 Shore A	5.3 perms
	Procedure B at 0.5mm (20mils) thickness 10%, Minimum permeance requirement is 2.5 U.S. perms	
Wet adhesion to polyurethane Foam	ASTM D903	3.5lbs per linear inch Low Temperatur
Low Temperature Flex	ASTM D522 Method B	Pass
Flammability	ASTM E108	Class A
Reflectance	ASTM C1549	0.88 (SilCoat White)
Emittance	ASTM C1371	0.87 (SilCoat White)

Product & Accessories



Respiratory protection required, unless there is adequate ventilation (refer to MSDS)



Appropriate gloves required (refer to MSDS)



Product Code	Description	Size
VSC100	SilCoat Silicone Roof Coating White	19L
VSC110	SilCoat Silicone Roof Coating Grey	19L
VSC001	SilCoat Silicone Roof Coating Grey Sample	950ml
VSC002	SilCoat Silicone Roof Coating White Sample	950ml



Product Code	Description	Size
VSC600	SilCoat Bleed Trap Coverage 2 – 2.5m ² /litre	19L



Product Code	Description	Size
VSC200	Epoxy Primer Kit Part A & B (70m ² per Kit)	3.79L





Product Code	Description	Size
VSC320	SilCoat Self Adhering Roof Tape	50mm x 15.2m



Product Code	Description	Size
VSC300	Reinforcing Polyester Tape	100mm x 91m



Product Code	Description	Size
VSC310	SeamSeal	19L





Product Code	Description	Size
VSC400	SiCoat Walk pad (12m ² per drum)	19L



Product Code	Description	Size
VSC410	SiCoat Walkway Granules	680g

Application

1. Weather and Conditions

Rain, fog, dew, frost, relative humidity above 90% will affect the adhesion and physical properties of coating. Do not apply if any of these conditions exist or will exist within five hours of application. The substrate must be dry at the time of application. Do not proceed if there is any surface moisture and plan to allow at least two hours from completion of application before dew fall. Do not apply the coating system unless the surface temperature is between 13°C minimum and 38°C maximum (cure time will vary depending upon the ambient temperature and humidity).

2. Adhesion Test: Primer or no primer?

Viking Roofspec would recommend that you prime the substrate particularly if you haven't conducted the following adhesion test.

SilCoat will adhere to most surfaces without a primer; however, some substrates may require a primer coat for optimal adhesion. To verify whether a Primer coat is required you will need to perform the following adhesion test:

Adhesion Testing (in accordance with ASTM D903)

- Mask and clean an area at least 30cm x 30cm, removing all debris.
- Rinse the area thoroughly to remove all residue and allow the area to dry completely.

- Apply a generous coat (150mm square) of Viking SilCoat (coverage rate 3M² per 1Lt).
- While the Viking SilCoat (VSC300) is still wet embed a strip of 50mm wide polyester fabric centred across the test patch leaving 100mm to 150mm of the fabric strip dry, outside the test patch area.
- Apply another coat of Viking SilCoat to cover the test area, ensuring coverage of the fabric at least 50mm in all directions. Allowing 100–150mm dry tab for the pull test.
- Let the coating completely cure (48 hours) then attach an appropriate scale to the end of the dry polyester strip and pull.
- A minimum of 4.5kg of pull resistance must be achieved.

If the adhesion test fails, perform the test again, in a new area. After cleaning, apply a coat of Viking SilCoat Primer (VSC200), prior to repeating the process above.

3. Surface Preparation

It is extremely important to get the roof clean and dry. First remove heavy deposits of dirt, leaves and other debris from the roof using broom or air blower, then inspect the entire roof surface and flashings for any open seams, tears, cuts, etc. Repair or replace loose fasteners and flaws so water is not blown in under membrane or flashings during

the cleaning process. Pressure wash roof with water and allow to dry completely.

For general cleaning, apply a Concentrated Cleaner according to label instructions. On all single ply membrane roofs, after application of cleaner, scrub the roof surface until clean and then power wash to remove debris and continue rinsing until all suds are gone.

Biological Control: Areas of algae, mildew or fungus on the roof membrane or the existing coating should be treated with a solution of one part household bleach and three parts water, followed by a power washer rinse using clear water.

Drying: After cleaning and rinsing the roof, ensure no dirt or debris is present. Allow surfaces to thoroughly dry to prevent blistering. Examine roof, paying particular attention to areas of physical damage to determine that residual water has in fact dried before applying BleedTrap or Primer coating.

Note: Drying time depends on weather conditions such as temperature, humidity and air movement.

Asphalt roofing sealer (bleedtrap)

To help inhibit bleed-through on asphaltic and bitumen-containing substrates, first apply one coat of A4207 BleedTrap Sealer (VSC600) at a rate of 2M² – 2.5M² per 1 Lt. to yield 0.2mm dry thickness. Full and consistent coverage required.

Priming

Viking recommend priming all substrates for best adhesion. If you need to check then perform the

Apply SilCoat Primer (VSC200) E5320 2-Part Epoxy Primer/Filler according to label directions. Existing silicone coatings should not be primed. Apply at rate of approx 10M² per 1Lt.

Viking SilCoat Primer (VSC200) consists of parts 'A' and 'B'. Both components must each be thoroughly stirred separately for five minutes prior to being mixed together in equal parts and again being thoroughly stirred together for five minutes. Mix only enough for area to be coated within 1.5hrs. This mixture can be thinned up to 20% with clean water to allow up to 2hrs working time. Allow 12 – 24hrs drying and must be Top coated within 72hrs, otherwise re-prime.

Reinforcement

Apply reinforcing tape over primed surfaces at locations that will experience higher degrees of movement. This may include transitions from horizontal to vertical up-stands, plywood joints showing uncontrolled movement, around penetrations, onto flashings such as drip-edges, unsecured laps of existing membrane and transitions between various substrates.

Use either 100mm polyester tape (VSC300) embedded between 2 x 150mm wide wet coats of SilCoat or 50mm wide Self-adhering Roof Tape (VSC320). For items such as odd shapes or mechanical fixings use Seamseal (VSC310).

Silcoat application instructions

Mix before application to ensure uniform color and consistency. Product should not be thinned. Apply by brush or 19mm nap solvent resistant roller. For cold weather application, keep material stored above 18°C. Do not apply if rain is expected within two hours. Do not apply to surface temperatures below 13°C or above 38°C.

Coverage: Apply two separate coats at the rate of 2.5M² – 3M² per 1Lt per coat (coverage dependent on surface texture). Allow first coat to dry a minimum of four hours at 13°C or higher, or until it can be safely walked on (product is moisture cure, low humidity will result in longer dry times); re-coat within four to 48 hours. Final coat should be allowed to cure 24 to 48 hours, depending on temperature and humidity, before suitable for light foot traffic.

Application tip: it can be a good idea to use a different colour for the first coat. This allows easier identification of the 2nd coat having full and proper coverage.

Coat all surfaces including expansion joint covers and flashings. Extra material is required at all edges and penetrations.

Upstands and edges

A base coat of Viking SilCoat is required at all penetrations and edges, in addition to the two following top coats.

Where upstands or plant (e.g. existing HVAC units) have been detailed with existing membrane, the surface must be coated with Viking SilCoat up to the termination flashing and then caulked with a 100% silicone sealant (note

the upstand should be a minimum of 150mm above the deck, otherwise there is a high risk of overflow).

Notes:

Application rate is job specific and losses due to surface profile, texture and wind may occur. Additional material may be required to achieve overall dry thickness of 0.6mm.

Spray application is not recommended by Viking Roofspec due to climatic conditions in New Zealand.

4. Clean up

Clean up of silicone coatings can be difficult and disposable roller sleeves or brushes are recommended.

Clean up Viking SilCoat using Mineral Turpentine or White Spirits.

Clean up Viking SilCoat Primer VSC200 (while wet) using water.

DO thin Viking SilCoat.

5. Optional WalkPad

After the Viking SilCoat coating is cured, tape off WalkPad area using duct tape.

Apply one coat of Viking SilCoat WalkPad (VSC400) at a rate of 1.5L/m².

Spread Viking SilCoat WalkPad safety yellow granules into wet coating at a rate of 2kg/10m² to improve traction.

Remove duct tape while coating is still wet.

6. Traffic

Allow 72 hours before foot traffic.

SilCoat System Product Use Guide

Refer to Application Guide SilCoat for more detailed application methods. This quick guide is to ensure you allow the correct materials and coverage rates when pricing.

Note that SilCoat is offered only as a repair and maintenance solution with a 5 year product warranty when a Building Consent is not required and a new membrane system with longer warranty is not an option for the client at this stage.

SilCoat application for repairs and maintenance only	
Over Bitumen membranes	
1. VSC600 19Lt Bleed Trap Barrier required for Bitumen material	<ul style="list-style-type: none"> Coverage approx. 2.0 – 2.5m² / Lt Water-based clean up Not to be thinned Coverage is dependent on smooth or chip surface. Dry time 12 – 24hrs Recoat would be required if no SilCoat topcoat is applied within 72hrs
2. VSC200 Epoxy Primer Kit Part A & B Water-based clean up	<ul style="list-style-type: none"> 10m² / Lt. Can be thinned up to 20% Allow to dry a minimum of 12 – 24 hours. Primer must be coated within 72 hours of the application
3. VSC300 / VSC310 / VSC320	Reinforcement of all laps, details, penetrations
4. Topcoats x 2 white or grey	<ul style="list-style-type: none"> 2.5m² – 3m²/Lt per coat Minimum 4 hrs between coats Turps or White spirits clean-up
Product Warranty	5 Years
SilCoat application for repairs and maintenance only	
Over non-bitumen membranes	
5. VSC200 Epoxy Primer Kit Part A & B Water-based clean up	<ul style="list-style-type: none"> 10m² / Lt. Can be thinned up to 20% Allow to dry a minimum of 12 – 24 hours Primer must be coated within 72 hours of the application
6. VSC300 / VSC310 / VSC320 reinforcing	Reinforcement of all laps, details, penetrations
7. Topcoats x 2 white or grey	<ul style="list-style-type: none"> 2.5 – 3m²/Lt per coat Minimum 4 hrs between coats Turps or White spirits clean-up
Product Warranty	5 Years

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