



PROFILED METAL ROOFING

**SEAMSIL® 500**

PANEL END LAP SEALING

**Introduction**

The SEAMSIL® 500 System is a Silicone based remedial treatment designed specifically for sealing panel and rooflight overlaps on a profiled metal roof. Silicone Systems have excellent elastic and flexible properties to withstand normal surface movements being unaffected by UV or extremes of weather and temperature.

SEAMSIL® has exceptional adhesion to prepared surfaces. It cures to provide a tough elastic encapsulation and has a proven track record in corrosion control. The System can be used on both steel and aluminium claddings adhering to most coatings: - PVC, Pvf2, etc. and most paint finishes.

All SEAMSIL® materials are formulated to be compatible with each other. Proprietary silicone products or other non-silicone mastics are however not the same, and must not be used in conjunction with SEAMSIL® Sealants and paints.

**Contractor Qualifications**

The Contractor must be an approved and fully trained SEAMSIL® Qualified Applicator. It is the contractors' responsibility to inspect each section of the works to ensure that the correct steps have been taken as outlined in this specification document.

Giromax Technology Ltd. includes full training in the preparation and application of the SEAMSIL® system and will arrange an inspection of the works to monitor specification compliance and assist the contractor. Typical inspections include DFT readings, adhesion testing and overall neatness and appearance.

The information contained herewith is provided as a general guide in good faith, but without responsibility for use of the product outside Giromax control. Users should undertake their own tests to determine product suitability. Individual project specifications can be produced following site inspection and assessment by Giromax Technology Ltd.



**SEAMSIL® Sealant** is a single component Alkoxy curing silicone supplied in 310 ml cartridges, gun applied to seal between the upper and lower sheets of an overlap joint.

**SEAMSIL® Basecoat** is single component Alkoxy curing silicone suspended within a solvent carrier, supplied in 5kg containers for brush application.

**SEAMSIL® Topcoat** is a colour matched single component Alkoxy curing silicone suspended within a solvent carrier, supplied in 5kg containers for brush application

<i>Curing System:</i>	Alkoxy	<i>Colour:</i>	Various
<i>Shore A (Approx.):</i>	20	<i>ISO 9047:</i>	25
<i>Tensile Strength:</i>	1.6 N/mm <sup>2</sup>	<i>Full Cure:</i>	14 Days
<i>Application Temp:</i>	+3°C/+60°C	<i>Shelf Life:</i>	12 mths
<i>Volume Solids:</i>	80% (±2%)	<i>Specific Gravity:</i>	1.40
<i>Movement Accom.</i>	± 50%	<i>Break Elongation:</i>	700%
<i>Temp. Resistance:</i>	-50°C/+100°C		

**Delivery & Storage:**

Materials shall be delivered in the manufacturers original, tightly sealed containers and unopened packages, clearly labelled with the manufacturers name, product identification, safety information, approvals and batch numbers. Store in a cool, well ventilated area. Keep containers tightly closed.

**Environmental Conditions:**

No application may proceed during inclement weather.

- The substrate must be free from ice, frost, surface moisture, visible dampness and any contamination.
- The air temperature must be above 3°C
- Surface to be 2°C above Dew Point.

**Further Information:**

For further information including Safety Data Sheets contact:



Cutting Edge Technology

SEAMSIL® is a Registered Trade name of Delvemade Limited



## Specification: **Seamsil**® 500

Issue	Revision	Date
1	Origination	Apr 1998
4	Specification Review	Jan 2008

The following specification is given in good faith, without prejudice or liability. Product Technical and Safety Data must be observed at all times and are deemed part of this specification.

### Surface Preparation



Remove, where practical, all visible sealants, mastics and bituminous coatings, previously applied to effect a sealed overlap. Ensure all debris is removed before SEAMSIL® application.

Thoroughly clean with Isopropyl alcohol and dry the surface. On new and unweathered PVC Plastisol, wipe surface to receive SEAMSIL® application with GE Silicones SS4179 silicone primer. Thoroughly dry the underside of the lap as necessary using equipment such as a mechanical driven blower.

### Application of SEAMSIL® 500

A sealed overlap is achieved by gun applying SEAMSIL® Sealant into the overlap, immediately coating with SEAMSIL® Basecoat followed by SEAMSIL® Topcoat when dry.



Gun apply SEAMSIL® Sealant into the lap to form a complete bridged seal. Apply SEAMSIL® Basecoat before the Sealant has cured (i.e. wet on wet). The upward brush movement of Basecoat

should further force the Sealant into the lap joint allowing it to make full contact with both the exposed and underside surfaces of the top sheet's leading edge.



Apply one coat of SEAMSIL® Basecoat to all prepared surfaces. A minimum WFT of 220 microns will achieve a DFT of 175 microns. Apply to at least 1" [25mm] either side of the joint.

The combined effect of the Sealant and Basecoat **must** form a fillet between the overlapping sheets that visually eliminates the leading edge of the top sheet.

Where there is excessive sheet movement that splits the seal before full cure is achieved, a polyester fleece may be introduced into the SEAMSIL® Basecoat. The fleece should be installed within 30 minutes of applying the Basecoat ensuring full contact is made over the whole profile. Ensure that the fleece is fully 'wetted' into the Basecoat using brush or roller.



Allow the Basecoat to reach 'touch dry' state, usually overnight, but which will vary with weather conditions. Apply one coat of SEAMSIL® Topcoat (coloured to the sheet), min WFT 235 microns to achieve a minimum DFT of 175 microns. Overlap the Basecoat by approx ½" [13mm]. Lap joints must be a minimum of 3" [75mm] wide (1½" [37mm] either side of the joint) and total a minimum DFT of 350 microns.

### Batten-Cap sealed roof sheet panels



Remove batten capping and prepare and treat all surfaces as previously described. Pay particular attention to removing existing sealants as far as practicably possible and cleaning around extra stitchers which may have been introduced in an attempt to seal the lap prior to SEAMSIL® treatment.

Seal the overlap with gun applied SEAMSIL® Sealant and brush applied SEAMSIL® Basecoat as described, extending the line to include two further fixings, now exposed.

The area under the snap-on cap is usually treated first, in case of inclement weather, using an appropriately sized piece of polythene to prevent the fresh silicone adhering to the cap when replaced. The panel pan can then receive SEAMSIL® Sealant, Basecoat and Topcoat as described.

Side lap sealing is not normally required but if so needed, contact Giromax for advice on the most effective method using SEAMSIL®.

### Application Notes

**This information should be read in conjunction with the product Safety Data Sheets.**

SEAMSIL® products can be thinned by 5% using SEAMSIL® Thinners T514. **Do not use White Spirit.** This will adversely affect adhesion and invalidate the guarantee.

Water trapped in the overlap detail must be released before overlap sealing. Ensure always that the surface to be treated is dry, clean and above the Dew Point.

Do not to disturb the uncured lap seal. To achieve a good overlap fillet, brush SEAMSIL® upwards towards the ridge.

Lap stitching screws especially additional fixings introduced close to the leading edge of the sheet may be encapsulated with SEAMSIL® thus incorporating them into the application.

**Do not clean and prepare the surface using a soap detergent solution.** This will leave a residual film and render adhesion impossible. Use only Isopropyl alcohol or GE SS4179 as a preparation agent.