

TECHNICAL DATA SHEET

Cut Edge Corrosion System

Reference	SWT Corrosion Primer	Flexlap
Purpose/Uses	<i>Rust and wet tolerant for use with Liquasil polymers</i>	<i>Cut Edge Corrosion Treatment</i>
Colour	<i>Grey</i>	<i>Goosewing Grey plus RAL Colour Range</i>
Application	<i>Brush or Roller</i>	<i>Apply by Brush - Roller</i>
Volume Solids	<i>100%</i>	<i>100%</i>
Recommended Film Thickness	<i>@100um Heavily rusted or pitted surfaces may require 2 coats</i>	<i>350-500 microns</i>
Coverage Rate	<i>Approx 40 linear metres per 1.0 kg tin</i>	<i>Approx 40 linear metres @ 150mm band thickness per litre</i>
Drying Time	<i>Allow 6-24 hours drying time</i>	<i>Rain free - 2 to 3 hours Thoroughly dry- 16 hours</i>
Thinners/Brush wash	<i>Use Sacrificial Brushes</i>	<i>Xylene</i>
Weight per Litre	<i>2 kg (Supplied in 0.5 litre tins)</i>	<i>0.98 kg</i>
Flash Point	<i>> 100° C</i>	<i>Above 32° C</i>
VOC.	<i>VOC. Free</i>	<i>VOC. Free</i>
Finish	<i>Semi Gloss</i>	<i>Semi Gloss</i>
Application Temperature	<i>5° C to 40° C (Optimum 15° C to 30° C)</i>	<i>-5° C +60° C</i>
Considerations	<i>Keep tins cool and shaded in summer. Keep tins warm in winter.</i>	
Approvals	<i>ABS Certified, IMO Approval, Lloyds Approval Ballast Tank Maintenance Coating Lloyds Type Approval: New Build Applications (Bore Steel and Shop Primers)</i>	<i>BBA Certification 18/5536</i>
Surface Preparation	<i>Remove existing or factory finishes and prepare to bare metal</i>	<i>All surfaces must be clean and thoroughly dry, particularly at joints</i>

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Cut Edge Corrosion System

LIQUID ROOFING SOLUTIONS

Application Method

Cut Edge Corrosion System

Liquasil does not normally recommend the sealing of overlapping roof sheets, nor treatment to the bottom roof sheets where no corrosion exists.

- Remove existing finishes and prepare to bare metal in a straight line, including profile crowns. Feather-in edges of existing / factory finishes. Surface rust may remain.
- Apply a single coat of Liquasil SWT Corrosion Primer to the prepared area at a film thickness of 100 microns
- Allow SWT Corrosion Primer to cure before applying a single coat of Liquasil Flexlap polymer finish at a wet film thickness of 350 – 500 microns. Surfaces must be bone-dry during application.



Preparation



Primer Applied



Completed Installation

Corrosion Primer – Important Notes

- The SWT Primer is a two-part epoxy comprising the primer (part A) and the hardener (part B)
- Part B is corrosive. Operatives must wear suitable PPE when handling
- Carefully and thoroughly stir one bottle of activator (Part B) into the tin of primer (Part A)
- Use the contents immediately. The contents will cure in the can in approximately 20-50 minutes depending on ambient temperature. Do not leave unopened cans unattended.
- On sunny days, keep the contents of the SWT Primer (both parts) in the shade and at a temperature below 20°C (store in a bucket of water on hot days). This measure helps prevent exothermic build-up during the products' chemical reaction, which can occur and causes the mixed contents to become very hot.

The primer can be installed on wet or damp surfaces, but will need more working with the brush. For ease of application, loosely towel dry the area to be treated to remove excess water.

Drying time is approx. 4 hours at 15°C and up to 24 hours curing time.

Over-coating time is unlimited.

Please refer to relevant MSDS sheets for further information.

The above instructions assume that no rust / rot is present to the bottom roof sheets where overlaps occur.

Non-Standard Installations

If an existing cut edge corrosion system is present, refer to Liquasil for further instructions or site survey.

Note that severely corroded roofs may not qualify for the Liquasil Latent Defects insurance Guarantee.



TECHNICAL DATA SHEET

Ultra PU Waterproofing System

Reference	Liquasil Ultra PU Embedment Coat	Liquasil Ultra Chopped Strand Reinforcement Mat	Liquasil Ultra PU UV Coat
Purpose / Uses	<i>Liquasil Ultra PU Embedment Coat is a one component, moisture triggered elastomeric urethane coating specifically developed as the first/embedment coat of a high performance waterproofing membrane for use on roof surfaces.</i>	<i>System reinforcement</i>	<i>UV Coat Liquasil Ultra PU UV Coat is a one component, moisture triggered elastomeric urethane coating specifically developed as the second, protective coat of a high performance waterproofing membrane for use on roof surfaces.</i>
Colour	<i>Light Grey</i>	<i>White</i>	<i>Dark Grey / Black</i>
Application	<i>Brush/Roller/Powered Roller</i>	<i>Rolled into embedment coat</i>	<i>Brush/Roller/Powered Roller</i>
Volume Solids	<i>89%</i>		<i>84%</i>
Recommended Film Thickness	<i>1mm</i>		<i>525 microns to 1mm</i>
Theoretical Coverage	<i>1m² per litre</i> <i>Rate (Rates will vary according to condition & evenness of substrate)</i>		<i>0.75m² per litre</i> <i>Rate (Rates will vary according to condition & evenness of substrate)</i>
Drying Time	<i>Shower proof - 30 minutes</i> <i>Tack-Free @19°C 85-95 minutes</i> <i>2-3 hours touch dry</i> <i>8-24 hours overcoat time</i>		<i>Shower proof 30 minutes</i> <i>Tack-Free @19°C 85-95 minutes</i> <i>2-3 hours touch dry</i> <i>8-24 hours drying time</i>
Thinners / Brush wash	<i>Use sacrificial brushes / rollers</i>		<i>Use sacrificial brushes / rollers</i>
Flash point	<i>30°C Closed Cup</i>		<i>30°C Closed Cup</i>
Application Temperature	<i>5°C to 35°C</i>		<i>5°C to 35°C</i>
Approvals	<i>BBA 18/5571</i>	<i>BBA 18/5571</i>	<i>BBA 18/5571</i>
Surface Preparation	<i>Surfaces must be clean, dust-free and dry before application</i>		<i>Surfaces must be clean, dust-free and dry before application</i>

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Ultra PU Waterproofing System

LIQUID ROOFING SOLUTIONS



Application Method

Ultra PU Waterproofing System

SURFACE PREPARATION

All chippings, dirt, soil, fungal growth must be removed from the surface prior to installation of the system. Consider power washing and fungicidal wash. Allow surfaces to dry.

If existing coatings are present, check condition & adhesion, removing any defective coating back to a firm edge.

Ballast chippings, if present, must be removed, but deeply embedded chippings may remain if their removal would result in extensively damaging the substrate.

Badly degraded asphalt must be removed.

Asphalt blisters to be cut open, exposing the surface to allow drying and then rebuilt using cementitious mortar.

Roofing felt should be removed and replaced if severely degraded. Felt blisters to be start-cut to expose the surface and allow drying, then re-bonded to the substrate.

Liquasil Ultra PU can be extended up and over brick / concrete parapet walls if required. Any cracks in these surfaces should be cleaned and filled with cementitious mortar and allowed to dry.

Liquasil Ultra Primer may be required in certain circumstances, for example when coating exposed timber or mortar.

Corroded metal surfaces should be wire brushed to remove loose and flaking corrosion and primed with

Liquasil SWT corrosion primer in accordance with the product data sheet.

DETAILING AND JOINTS

All wood or wood based materials are to be primed with Liquasil Ultra Prime in accordance with the product data sheet.

All upstands, movement, cracks and expansion joints along with any other areas where movement could occur must first be covered with Tape as a bond break detail, care taken to ensure the tape edges are fully adhered.

It is not normally necessary to reinforce felt/carrier membrane overlap joints unless there is doubt about the integrity of the overlap.

Liquasil chopped strand reinforcing mat 225gsm must now be used as a reinforcement membrane over treated movement joints together with all angle joints with protrusions and upstands.

Liquasil chopped strand reinforcing mat 225gsm must also be used to reinforce all valley gutters with the membrane being overlapped up onto the roof panels.

Liquasil Ultra PU is then to be applied to the areas to be treated at a nominal rate of 8 linear meters per litre on joints and 0.7 litre/m² in gutters.

Liquasil chopped strand reinforcing mat 225gsm should then be laid over the Liquasil Ultra PU Embedment Coat and then brushed to totally wet out and encapsulate

the sheet, including the edges. Adjacent lengths/sections of the mat are to be overlapped to ensure a minimum 2cm overlap after coating.

APPLICATION OF LIQUASIL ULTRA PU EMBEDMENT COAT

Installation – Embedment Coat

Liquasil Ultra PU Embedment Coat is to be applied to the roof surface using a medium pile roller at an application rate of 0.5 lt/m² (pitched roof) and 1.0lt/m² (flat roofs).

Reinforcement - Pitched roofs

These require local reinforcing, as described in the previous section. No further reinforcing is necessary.

Reinforcement - Flat roofs

225gsm Reinforcing Mat is to be applied over the entire roof surface, following the roof contours.

Adjacent widths of Liquasil chopped strand reinforcing mat 225gsm should be overlapped to ensure a minimum 2 cm overlap after coating.

Liquasil chopped strand reinforcing mat 225gsm should also be overlapped 3-6cm on to the treated reinforced up stands, parapets, joints and corners to maintain a continuous reinforcement.

Completion of Embedment Coat

After the 225gsm Reinforcing Mat has been laid out, it should be rolled in to the wet Liquasil Ultra PU Embedment Coat.

A further application of Liquasil

Ultra PU Embedment Coat should be rolled through the Chopped strand reinforcing mat 225gsm on any areas not completely wetted to totally encapsulate and impregnate the matting, if required.

For flat roof decks, the coverage rate of the Liquasil Ultra PU Embedment Coat will be 1.0 litre/m² with 225gsm CSM. This may increase on uneven or porous surfaces.

For pitched roofs, the coverage rate of the Liquasil Ultra PU Embedment Coat will be 0.5 litre/m².

Liquasil Ultra PU Embedment Coat can be over coated after a minimum of 16 hours @ 20°C. At lower temperatures, this time will be increased.

Provided surfaces are clean, there is no maximum over coating time.

APPLICATION OF LIQUASIL ULTRA PU TOP COAT

Installation – Seal Coat

Prior to application of Liquasil Ultra PU Top Coat, Liquasil Ultra PU Embedment Coat must be dry and free from contamination.

Liquasil Ultra PU Top Coat should be applied by brush or roller, with rollers being preferred for large applications.

Liquasil Ultra PU Top Coat should be applied to give a uniform even coating totally obliterating the embedment coat at a nominal dry film thickness of 525 microns, this equates to a coverage rate of 0.75 litre/m² on smooth surfaces.

APPLICATION OF SLIP RESISTANT FINISH

Where slip resistant walkways are required, this can be achieved by the application of an extra coat of Liquasil Ultra PU Top Coat incorporating an aggregate.

As soon as the overall coat of Liquasil Ultra PU Top Coat is dry, approximately 6 hours at 20°C, a second coat should be applied to the designated area. Aggregate 0.8-1mm should then be broadcast over the freshly applied product at a rate of 0.75Kg/m², whilst the Liquasil Ultra PU Top Coat is still wet.

This can further be sealed with a UV stable clear sealer Liquasil Ultra PU Sealer at a typical coverage of 0.5 litre/m², if required.

ADDITIONAL PRECAUTIONS

- 1 Use industrial safety gloves.
- 2 Use suitable eye protection.

- 3 Before use, ensure that you read the relevant Health and Safety Data Sheets for this product.

The company will supply, upon request, individual advice in writing in connection with the use and application of its products in all appropriate cases.

Customers are urged to make use of this service.

This leaflet is provided for general guidance only.

All recommendations and suggestions are made in good faith but without guarantee and are subject to the company's terms and conditions.

*Life Expectancy on a conventional roof with limited pedestrian access.

The coverage rates indicated above will give an expected service life of 15 years on a flat roof.



TECHNICAL DATA SHEET

Metal Roof Coating System

Reference	SWT Corrosion Primer	Metalseal 20
Purpose/Uses	Rust and wet tolerant for use with Liquasil polymers	Permanent system for external refurbishment of metal profile roof systems
Colour	Grey	Goosewing Grey plus RAL Colour Range
Application	Brush or Roller	Brush/Roller/Airless Spray Apply one or two coats to leave a smooth, even & patch free finish
Volume Solids	100%	85%
Recommended Film Thickness	100 microns	DFT @ 300um - 3m ² / DFT @ 250um - 3.5m ²
Coverage Rate	Up to 6 sq metres per kg Heavily rusted or pitted surfaces may require 2 coats	Approx 3 to 4 m ² per litre
Drying Time	Allow 6-24 hours drying time	Rain free - 2 to 4 hours Thoroughly dry - 8 hours in optimal conditions
Thinners/Brush wash	Use Sacrificial Brushes	Xylene
Weight per Litre	2 kg (Supplied in 0.5 litre tins)	1.0 kg
Flash Point	> 100° C	Above 32° C
V.O.C.	V.O.C. Free	45 grms/litre
Finish	Semi Gloss	Sheen/Matt
Application Temperature	5° C to 40° C (Optimum 15° C to 30° C)	-5° C +60° C
Considerations	Keep tins cool and shaded in summer. Keep tins warm in winter.	
Approvals	ABS Certified, IMO Approval, Lloyds Approval Ballast Tank Maintenance Coating Lloyds Type Approval: New Build Applications (Bore Steel and Shop Primers)	BBA Certification 18/5536
Surface Preparation	Remove existing or factory finishes and prepare to bare metal	All surfaces must be clean and thoroughly dry, particularly at joints

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 LIQUASIL



Metal Roof Coating System

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Application Method

Metal Roof Coating System

- Thoroughly clean, degrease and prepare all surfaces, removing any existing, unstable finishes as far as reasonably practicable.
- Conduct adhesion test with Metalseal on existing finishes if they are to remain in-situ. If adhesion is not satisfactory, please contact Liquasil for further advice.
- Treat cut edge corrosion and spot rust with Liquasil SWT Primer at a film weight of 100 microns.
- Apply a single coat of Metalseal to previously primed areas at a wet film thickness of 250-300 microns. Allow to dry.
- Using Airless spray, roller or brush, apply a single coat of Metalseal at a wet film thickness of 300-350 microns, to achieve DFT of 250-300 microns.
- Film weights can be achieved in one or two coats as necessary.



Preparation



Primer Applied



Completed Installation

Spray Application Guidelines

Warning

The information provided here should not be considered conclusive and should be read in conjunction with other safety information that might be applicable, for example, COSHH or spray equipment operator instructions. Please read all relevant safety data before commencing application.

Injection Injury

All sprayed coatings present a risk from injection injury. Read all information from your equipment provider and apply the safety catch whenever there is a pause in the spraying application. Read all information regarding avoiding injection injury and the dangers of injection injury.

In the event of injection injury seek immediate emergency treatment and provide medical personnel with MSDS information provided.

Avoiding Static Sparks

All spray equipment should be earthed when using solvent-containing materials since static build-up can cause sparks causing ignition of materials. Ask your spray equipment provider about methods of avoiding static build-up.

Spray Training

Metalseal is for application by professional applicators only. For health and safety reasons, as well as good practice, we recommend formal training for all spray applicators.

Spraytrain www.spraytrain.com

Spray Equipment Hire, Sales Service & Spares

Sprayplant Limited www.sprayplant.co.uk

Suggested Equipment Specification

Graco Gmax 7900 petrol powered airless spray unit fitted with 30 mesh filter 15 metre 3/8" nylon braided hose, 1 metre nylon braided whip hose, compatible airless spray gun (remove any spray gun filters), XHD-517 XHD-519 or XHD-521 spray tip.

Atomising Pressure at gun: 3000 psi - note that slight tails are likely to be present on all tip sizes since product will not fully atomise at the tip.

Material Preparation

Remove any skin that may have formed on the surface of the product before stirring thoroughly.

If using powered stirring equipment, avoid fast revolutions and do not allow the agitator blades to break the surface of the product, as this will aerate the material, making unsuitable for airless spray application.

Flushing & Purging

Before and after use, all spray equipment (including filters) should be thoroughly flushed with solvent (Virgin Xylene is strongly recommended). Ideally, do not use hoses that have previously been used or will be used for spraying water based paints.

Thoroughly purge spray equipment with material (approx 5 minutes per 15 metres of hose) with the spray tip assembly removed in order to reduce the chance of any tip blockages and to save time during application.

Pressure Drop

Pressure drop can be affected by various factors including temperature, increased flow rate by using larger tips than specified, using worn tips or longer or narrower hoses.

Tip Wear

Spray tip wear is common with airless spray applications and in order to reduce material wastage and achieve a consistent finish, we recommend regular tip replacement.

A new tip is far cheaper than wasted material.

Spray Method

To ensure an even application, a 50% overlap is recommended. Spray passes should be even. Avoid flicking up the spray gun at each pass. Frequently check wet film thickness during application.

Overspray

Atomised product can easily be picked up by the wind and carried long distances. Avoid spraying product in windy or gusting conditions to avoid overspray.

Over-sprayed surfaces should be attended to immediately.

