

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	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.	System reinforcement	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.
Colour	Light Grey	White	Dark Grey / Black
Application	Brush/Roller/Powered Roller	Rolled into embedment coat	Brush/Roller/Powered Roller
Volume Solids	89%		84%
Recommended Film Thickness	1mm		525 microns to 1mm
Theoretical Coverage	1m ² per litre Rate (Rates will vary according to condition & evenness of substrate)		0.75m ² per litre Rate (Rates will vary according to condition & evenness of substrate)
Drying Time	Shower proof - 30 minutes Tack-Free @19°C 85-95 minutes 2-3 hours touch dry 8-24 hours overcoat time		Shower proof 30 minutes Tack-Free @19°C 85-95 minutes 2-3 hours touch dry 8-24 hours drying time
Thinners / Brush wash	Use sacrificial brushes / rollers		Use sacrificial brushes / rollers
Flash point	30°C Closed Cup		30°C Closed Cup
Application Temperature	5°C to 35°C		5°C to 35°C
Approvals	BBA 18/5571	BBA 18/5571	BBA 18/5571
Surface Preparation	Surfaces must be clean, dust-free and dry before application		Surfaces must be clean, dust-free and dry before application

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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 be 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.

