

Edge Corrosion and Coating System

For profiled metal and fibre cement roofs



The challenge

Plastisol or PVC-coated metal sheeting which has been cut on-site exposes a cut edge of bare metal, mainly at overlaps and eaves. The coating will, over time, peel away from the untreated edge and corrosion follows through weathering and capillary action of water held in the lap.

If neglected, the edge corrosion may progress up the sheet length, negating the effectiveness of weather-sealed lap joints and gutter overhangs. Early detection and effective treatment are vital to prevent costly future work or total sheet replacement.

The solution

The SIGnature Edge Corrosion and Coating System comprises fast curing polyurethane liquid joint sealants, primers and fibrous coatings, which are applied over existing roofing systems to create a durable and seamless waterproofing layer. Due to the coating's excellent


tensile strength there is usually no need to incorporate additional reinforcing fabric; the system is easily applied by brush, roller or squeegee. When properly installed by SIG's Accredited Contractors (DATAC) the products are guaranteed for 10 years.

A separate liquid coating and thickening agent are also available for total roof coverage.

Typical applications

Ideal for the following applications:

- Protection of cut edges on profiled metal roofs
- Waterproofing repair for fixings and roof penetrations
- Gutter repair
- Whole roof coverage
- Encapsulation of fibre cement roofs



An innovative polyurethane-based liquid waterproofing system ideal for protecting against cut edge corrosion of metal roof sheeting. In addition, it can be specified for fully protective coating replacement and fibre cement sheet encapsulation.

BENEFITS

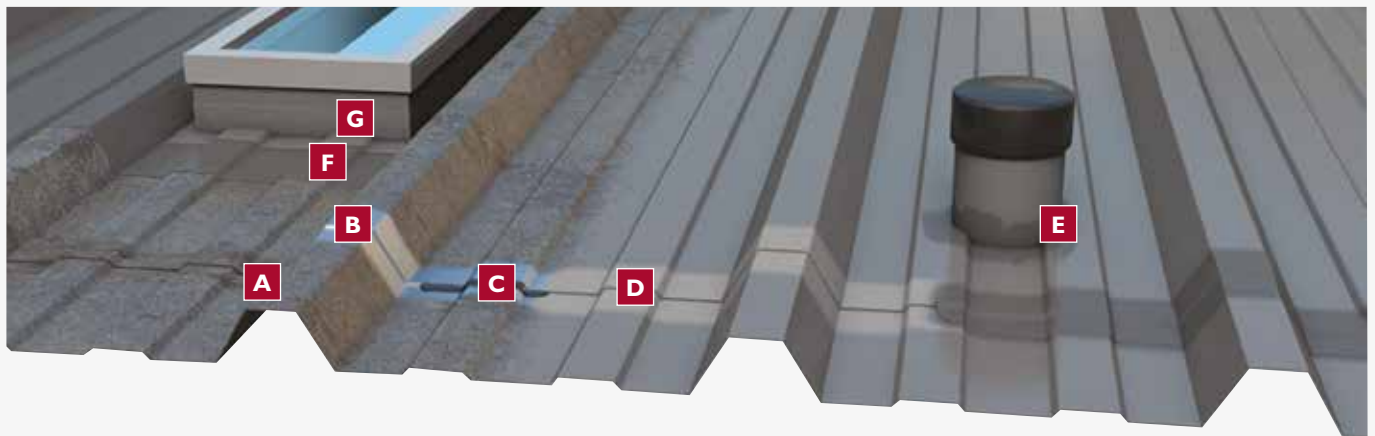
- CAN BE APPLIED ALL YEAR ROUND ABOVE 5°C
- NO WASTAGE - PRODUCT CAN BE STORED AND REUSED
- COLD APPLIED - NO HEAT OR FLAME
- EXCELLENT ELASTICITY AND TENSILE STRENGTH
- PRODUCT GUARANTEED FOR 10 YEARS IF INSTALLED BY DATAC CONTRACTOR

Edge corrosion and coating system applications

Product	Description and uses	Minimum coverage rate	Drying time
SIGNature PU-10 Liquid Coating 15kg Grey	Single component liquid membrane for use in conjunction with SIGNature PU Thickening Agent for full roof encapsulation	1.5 to 1.8kg/m ² minimum coverage, dependent on substrate	Full cure 48 hours Touch dry in 2 to 4 hours*
SIGNature PU Liquid Fibre 15kg	Single component fibre reinforced liquid for use in cut edge protection, for fully coating gutter detail and other detailing work	1.8 to 2kg/m ² if used as a stand alone product	Full cure 48 hours Touch dry in 2 to 4 hours*
SIGNature PU Same Day Primer 4ltr	General purpose primer for same day application of waterproofing membrane	0.2ltr/m ² , dependent on substrate porosity	2 to 4 hours*
SIGNature PU Next Day Primer 5ltr	General purpose primer for next day application of waterproofing membrane	0.2ltr/m ² , dependent on substrate porosity	12 to 24 hrs
SIGNature PU Joint Sealer 600cc foil sausage	Paste for side and end laps, internal corners and as a general gap filling paste	6mm x 10mm diameter bead will cover 10m per 600cc foil	4 hours
SIGNature PU Thickening Agent 1kg	Additive for SIGNature PU Liquid Coating to thicken the membrane for vertical or sloped applications to prevent runs in the membrane	To be mixed into the SIGNature PU Liquid Coating at a ratio of between 10% to 30% by weight, application dependent	N/A
SIGNature PU Reinforcing Tape 75mm, 100mm and 150mm widths x 10m lengths	Reinforcing tape for roof sheet laps and change of directions such as up-stands; available in various widths	10 linear metres per roll It is vital that the primer is applied and fully cured before the application of this product	Overcoatable immediately

* Must be touch dry not tacky before further product application

Typical specification (metal roofing)



- A** **UNTREATED CUT EDGE**
- B** **ANY RUSTED AREAS TAKEN BACK TO BARE METAL**
- C** **SIGNATURE PU JOINT SEALER**
- D** **SIGNATURE PU PRIMER**
Brush or roller applied to a clean, dry surface at a rate of between 0.1 to 0.2 litres/m² and allowed to cure before application of top coat.
- E** **SIGNATURE PU LIQUID FIBRE**
Used to create a continuous reinforcement joint to pre-primed end laps, side laps, upstands and corner details etc.
- F** **SIGNATURE PU-10 LIQUID COATING AND SIGNATURE PU THICKENING AGENT**
Mix for whole roof covering/encapsulation. brush or roller apply at a rate of 1.5 to 1.8kg per m².
- G** **SIGNATURE PU REINFORCING TAPE**
Used to reinforce change of angles and upstands on encapsulation projects.

Cut edge protection installation guide

Preparation

Ensure all surfaces are prepared and are clean and free from any debris, dust and dirt. Grind off or sand blast all rusted areas back to bare metal. It is good practice to remove any loose or corroded fixings and replace with new. All lap and end joints must be sealed with SIGnature PU Joint Sealer.

Prime the surfaces intended to be treated at a rate between 0.1 to 0.2 litres/m² with a brush or roller. The PU Same Day or Next Day Primer (project specific) must be applied evenly ensuring that it does not pond in low areas.

Allow the selected primer to fully cure (for curing times consult product range guide or relevant product data sheet). The primer must be 'touch dry' before the application of the fibre coating.

Application of reinforcement detail

Note: If SIGnature PU Liquid Fibre is applied whilst the primer is still tacky a chemical reaction will cause the product not to bond.

Create a continuous reinforcement joint with SIGnature PU Liquid Fibre at a coverage rate of no less than 1.8kg/m² at a width of 150mm evenly divided across the edge of the sheets at 75mm either side.

For gutters we would recommend fully coating the entire previously primed gutter with SIGnature PU Liquid Fibre at 1.8kg/m².

Whole roof encapsulation installation guide

Preparation

Ensure that all surfaces are clean and free from any debris, dust and dirt. Grind off or sand blast all rusted areas back to bare metal. It is good practice to remove any loose or corroded fixings and replace with new. All lap and end joints must be sealed with SIGnature PU Joint sealer.

Prime the surfaces intended to be coated at a rate between 0.1 to 0.2 ltrs/m² with a brush or roller. The PU Same Day or Next Day Primer (Project specific) must be applied evenly ensuring that it does not pond in low areas.

Allow the selected primer to fully cure (for curing times consult product range guide or relevant product data sheet). The primer must be 'touch dry' before any further product application.

Once the primer has cured ensure the surface is clean and dry, reinforce all joints and laps on the roof sheets with SIGnature PU Reinforcing Tape ensuring that it is fully adhered to the previously primed and dry surface by pressing into the surface with a solid roller.

SIGNature PU Liquid Fibre must be used at any upstands, corners, gutters changes of direction details and any other areas where it is not possible to use the PU Reinforcing Tape at a minimum coverage rate of 1.8kg/m².

Application of SIGnature PU-10 Liquid Coating to main field area

It is vital that SIGnature PU Thickening Agent is mixed into the product to avoid runs and sags and to ensure an even coating. Mix at a rate of between 10% to 30%. The amount will be determined by the severity of the pitch or size of profile to roof sheet (e.g. 15kg of PU Liquid Coating add between 1.5 to 4.5 sachets).

Once the primer has cured ensure the surface is clean and dry and all joints, laps have been reinforced you can apply the SIGnature PU Liquid Coating.

Ensure the surface is clean and dry and apply the PU-10 Liquid Coating with a roller or brush at a minimum consumption rate of 1.5-1.8kg/m². This will give you a thickness of approximately 1.2 to 1.3mm.

Note: Although the product will cure in 4 to 6 hours (depending on temperature) do not traffic the roof until the system is fully polymerised.

About SIG Design & Technology

SIG Design & Technology is a part of SIG Roofing, a leading division of SIG plc, a FTSE listed company and the UK's market leading specialist supplier to professionals in the building and construction industry.

SIG Design & Technology has put together an 8-step guide to identify the challenges and ensure that a roof's design meets a building's requirements.

Called **#PerfectRoof**, the eight steps follow the process from product selection and design expertise through to full guarantees and planned maintenance. Its know-how is just part of the service that is provided absolutely free to customers.



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