

SIgnature PU Liquid Waterproofing System Single coat polyurethane membranes



A revolutionary, fast curing, pure elastomeric, hydrophobic, polyurethane flat roofing system. SIGnature PU Liquid Coatings can be applied as a single coat (PU-20 Kit with accelerator component added) with only localised reinforcing as required, creating a bubble-free and durable liquid applied roofing system.

Typical applications

The system can be used in either new build or refurbishment applications and includes primer options for multiple surface applications. Fibre-reinforced detailing liquids, pastes, tapes and thickening agents (PU-10 only) are also available to provide a complete solution to cover all parts of the roof. See component table overleaf.

Installation

SIGnature PU Liquid Waterproofing Systems can be applied by brush, roller, squeegee or airless spray systems with minimum recommended coverage rate of 1.5 to 1.8 kg/m².

Description

SIGnature PU Liquid Coatings create a highly elastic membrane with strong adhesion to many surfaces. They are offered with warranties of up to 20 years (dependent on product selection).

SIGnature PU Liquid Coatings are based on pure elastomeric, hydrophobic polyurethane resins plus special inorganic fillers, which result in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

Key benefits

- Can be applied all year round above 5°C
- Cold applied – no heat or flame
- Excellent elasticity and tensile strength
- Product guarantees up to 20 years (product specific) when installed by a DATAC Contractor

Typical specification (over-coating of existing roofing)

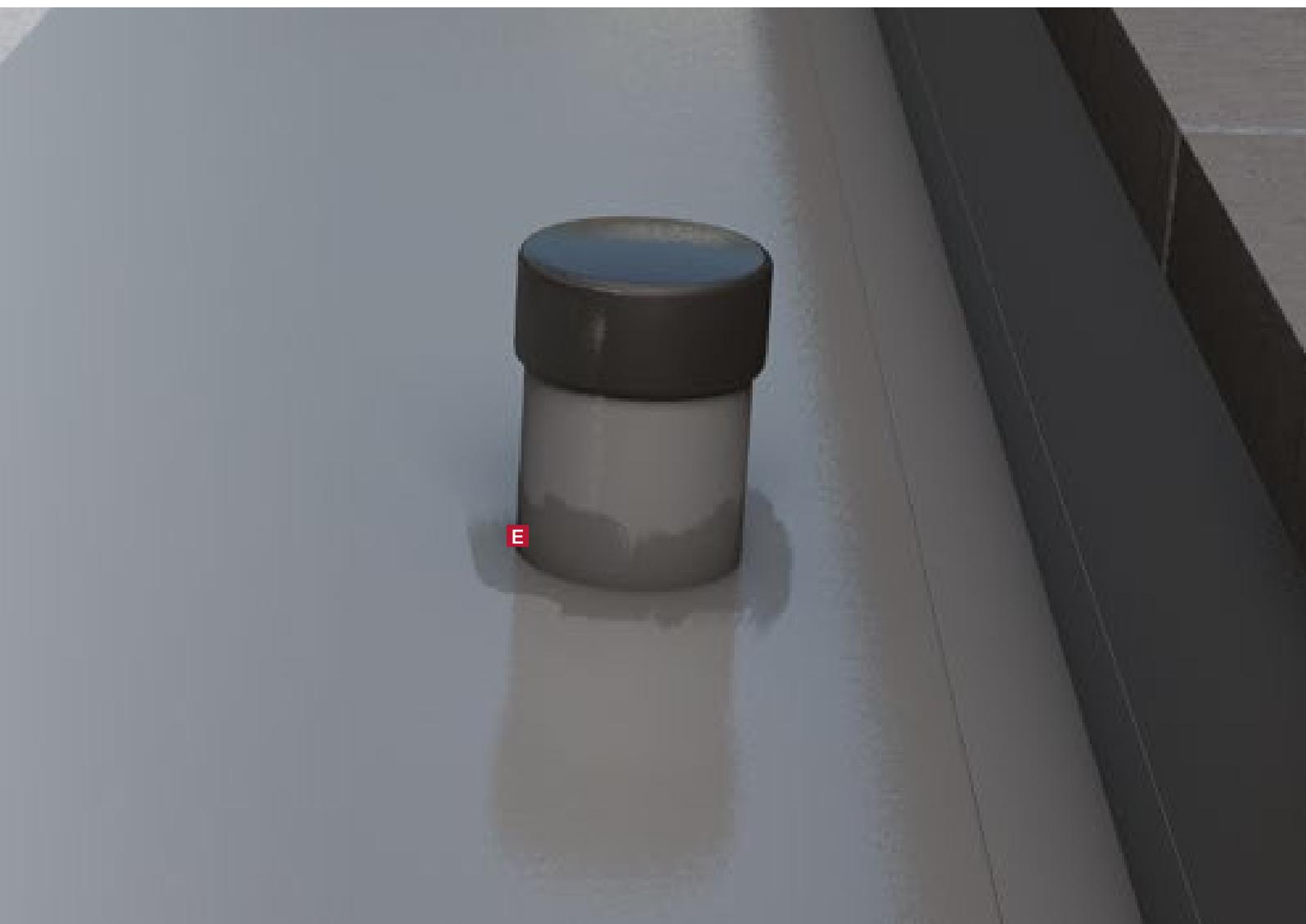
- A** Existing roof (old bitumen membrane shown)
- B** SIGnature PU Primer
- C** SIGnature PU-10/PU-20 Kit
- D** SIGnature Reinforcing Fabric used wet on wet between coats of PU-10/PU-20 Kit
- E** SIGnature PU Liquid Fibre for pipe details and upstands

A

B

C

D



PU-20 System applications

Product	Description and uses	Minimum coverage rate	Drying time
SIGNature PU-20 Liquid Coating Kit 15kg + 600g Accelerator Grey 20 Year Guarantee**	A rapid curing two component kit, single coat application liquid roofing membrane Accelerator must be used and thoroughly mixed into the membrane liquid	1.5 to 1.8kg/m ² minimum coverage, dependent on substrate	Touch dry in 30 minutes Trafficable in 2 to 3 hours Full cure 6 hours*
SIGNature PU-10 Liquid Coating 15kg Grey 10 Year Guarantee**	Single component liquid membrane, single coat application	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 5kg and 15kg Grey	Single component fibre reinforced liquid for difficult details where Reinforcing Tape is impossible to use Often used for 150mm upstand details	1.5kg/m ² as detailing with additional 0.5kg coat of PU-20 Liquid Waterproofing Kit applied as a top coat 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 4 litres	General purpose primer for same day application of waterproofing membrane	0.2 litres/m ² , dependent on substrate porosity	2 to 4 hours*
SIGNature PU Next Day Primer 5 litres	General purpose primer for next day application of waterproofing membrane	0.2 litres/m ² , dependent on substrate porosity	12 to 24 hrs*
SIGNature PU PVC Primer 5 litres	Primer specific for PVC overlays	0.1 litres/m ²	30 minutes to 1 hour*
SIGNature PU TPO/FPO Primer 5 litres	Primer specific for TPO/FPO overlays	0.1 litres/m ²	30 minutes to 1 hour*
SIGNature PU Terrace 4 litres Clear	Hard wearing polyurethane surface protection for balconies and walkways Must have quartz granules sprinkled over the first coat whilst wet to create a slip resistant surface, a further coat is applied as a sealer once initial coat/quartz application is dry and surplus granules brushed off	0.1 to 0.2 litres/m ² per coat this can increase and is dependent on size/quantity of quartz used	SIGNature PU- 20 Liquid Coating Kit needs to be fully cured before application (approx. 2 to 3 hours) Average curing time of PU Terrace is 8 hours between coats*
SIGNature PU Thickening Agent 1kg	Additive to PU-10 Liquid Coating to thicken the membrane for vertical or sloped applications to prevent runs in the membrane NOT TO BE USED WITH PU-20 Liquid Coating Kit	To be mixed into the PU-10 Liquid Coating at a ratio of between 10% to 30% by weight, application dependent	N/A
SIGNature PU Joint Sealer Grey	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 Reinforcing Fabric	For fully reinforcing the system in specifications that require it	1m x 100m roll Applied 'wet on wet' between coats of the SIGNature PU Liquid Coatings	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

* Temperature dependent

** Applicators must be fully trained and DATAC approved to qualify for Guarantees

General installation guidance – Warm roof

1. VCL and approved Insulation to be installed according to manufacturers and/or SIG Design Technology specifications.
2. Create a tilt fillet using SIGnature PU Joint Sealer on all 90° angles, e.g. changes of directions, upstands, roof lights, pipe work etc.
3. Seal around all outlets or gullies and insulation joints using SIGnature PU Joint Sealer.
4. Prime all surfaces with either SIGnature PU Same Day or PU Next Day Primer and according to the relevant data sheet and coverage rate, allowing the prescribed curing time before proceeding onto any further product application.
5. All joints to the insulation boards must be reinforced using SIGnature PU Reinforcing Tape (self-adhesive) after the primer has been allowed to fully cure.
6. All upstands and any areas where it proves impossible to apply the PU Reinforcing Tape, SIGnature PU Liquid Fibre can be used at a minimum coverage rate of 1.8kgm².
7. SIGnature PU-20 or SIGnature PU-10 (specification and warranty length required dependent) can then be applied to the previously prepared areas at a coverage rate of no less than 1.5 to 1.8 kg m² in a single coat. SIGnature PU Thickening Agent must be mixed into the PU-10 Liquid Coating when applying to vertical or inclined surfaces at the required ratio dependent on the severity of the slope.

Overlay to bitumen or asphalt substrates – fully reinforced wet-on-wet using SIGnature PU Reinforcing Fabric

1. All surfaces that are to be applied to must be clean, dry and fully adhered to the substrate.
2. Any splits, cracks or other blemishes must be filled with SIGnature PU Joint Sealer.
3. Create a tilt fillet using SIGnature PU Joint Sealer on all 90° angles, e.g. changes of directions, upstands, roof lights, pipework etc.
4. Seal around all outlets or gullies using SIGnature PU Joint Sealer.
5. All surfaces to receive the SIGnature PU-10 or PU-20 Liquid Coating must be primed with the appropriate primer at the recommended coverage rates and must be allowed to fully cure before any further product application.
6. All upstands and any areas where it proves impossible to apply the PU Reinforcing Tape, SIGnature PU Liquid Fibre must be used at a minimum coverage rate of 1.8kgm².
7. SIGnature PU-20 or SIGnature PU-10 (specification and warranty length required dependent) can then be applied to the previously prepared areas at a coverage rate of no less than 1.5 to 1.8 kg m². SIGnature PU Reinforcing Fabric must be used on the entire field area. A base coat of 50% of the total consumption of the liquid is applied to the intended surface sectionally and the PU Reinforcing Fabric embedded into the wet base coat and is immediately saturated over the top by applying the remaining 50% of the PU Liquid Coating ensuring that the weave of the fabric is no longer visible. SIGnature PU Thickening Agent must be mixed into the PU-10 when applying to vertical or inclined surfaces and the required ratio dependent on the severity of the slope.



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About SIG Design Technology

SIG Design Technology is part of SIG UK Exteriors, a leading division of SIG plc, a FTSE 250 listed company and the UK's market leading specialist supplier to professionals in the building and construction industry. It designs and supplies flat roofs, green roofs, and zinc, copper and stainless steel roofing and cladding.

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.

