

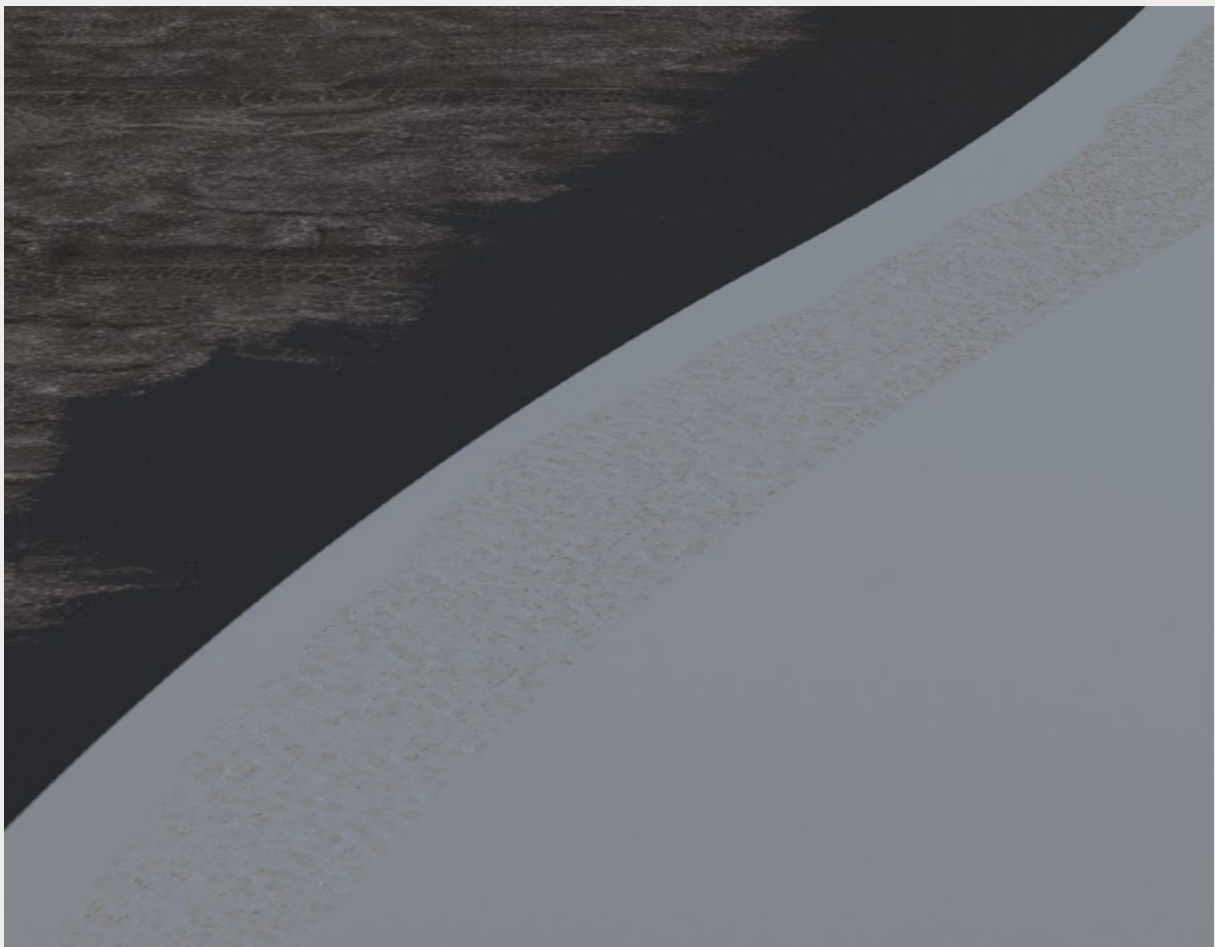
SIGNATURE^S

LIQUID WATERPROOFING

Product Data Sheet

PU-20 LIQUID COATING KIT

Polyurethane, liquid membrane for waterproofing and protection.



DESCRIPTION

SIGNature PU-20 Liquid Coating Kit is a two component polyurethane liquid system, which includes (in a separate tin) a curing agent to produce a highly elastic membrane with strong adhesion to many types of surfaces.

It is based on pure elastomeric hydrophobic polyurethane resin plus special inorganic fillers, which result in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

The curing agent, SIGNature PU-20 Accelerator, is added to improve drying times and also to boost mechanical properties, hardness and chemical resistance.

Applied with brush, roller or airless spraying in one coat with minimum total consumption of 1.5 to 1.8kg/m².

TYPICAL APPLICATIONS

The system can be used in either refurbishment and new build applications. Various primer options are available to suit the existing roof covering or substrate. Fibre-reinforced detailing liquids, pastes and tapes are also available to provide a complete solution to cover all parts of the roof.

LIMITATIONS OF USE

Not recommended for unsound substrates or waterproofing of swimming pool surfaces in contact with chemically treated water.

FEATURES AND BENEFITS

- Excellent adhesion to almost any type of surface, with the use of a range of SIGNature PU Primers dependent on the surface being applied to
- Fast drying times with added curing agent, especially during winter months
- Excellent weather and UV resistance
- Excellent thermal resistance, the product never turns soft.
(Maximum service temperature 80°C, max shock temperature 200°C).
- Resistance to cold: remains elastic even down to -40 °C.
- Excellent mechanical properties, high tensile and tear strength, high abrasion resistance
- Good chemical resistance
- Non-toxic after full cure
- Water vapour transmission: the film breathes so there is no accumulation of humidity under the coat.

COLOURS

Light Grey.

CLASSIFICATION ACCORDING TO EOTA

Certified quality, environmental and occupational health and safety management systems ISO 9001, ISO 14001 and OHSAS 18001.

APPLICATION PROCEDURE

Can be successfully applied on: concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, galvanized steel. For information about other substrates, please contact our technical department.

Standard concrete substrate conditions (no primer needed):

- Hardness: R28 = 15 Mpa.
- Humidity: $W < 10\%$.
- Temperature: 5-35°C.
- Relative humidity: $< 85\%$.

Primer selection for special conditions and substrates:

Please refer to the Primer section in the SIGnature PU Liquid Waterproofing System brochure.

PACKAGING AND SHELF LIFE

SIGnature PU-20 Kit consists of a 15kg drum of the waterproofing liquid and separate 600cc tin of PU-20 Accelerator.

Can be kept for 12 months minimum in the original unopened drums and pails in dry places and at temperatures of 5°C to 25°C. Once opened, use as soon as possible.

CURING AGENT MIXING

SIGnature PU-20/SIGnature PU-20 Accelerator ratio 15kg : 600cc.

INSTALLATION

Clean the substrate using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed. Surface irregularities should also be filled in.

Priming:

Apply the required SIGnature PU primer following the guidelines on the relevant product data sheets.

Mixing:

Use a low speed (300 rpm) mixer.

Application:

Apply with roller, brush or airless spraying (200-250 bar) in a single coat with a minimum total consumption rate of 1.5 to 1.8kg/m².

If used with the PU Reinforcing Fabric a coverage of 0.75kg/m² to 0.9kg/m² Base Coat, then embedding the fabric into the wet base coat. Immediately apply a further 0.75kg/m² to 0.9kg/m² saturation/top coat, ensuring that the weave of the fabric is no longer visible.

Do not exceed 48 hours between any additional coats if they are required. If 48 hours has been exceeded or if you are unsure of the interlayer adhesion, use PU Same Day Primer at approx 0.1 litres per m² as a re-activation primer. The primer must be allowed to fully cure before any further application This will ensure good intercoat adhesion.

PU Thickening Agent cannot be used in conjunction with PU-20.

TECHNICAL SPECIFICATION

Modulus at 100% elongation	UNITS	METHOD	SPECIFICATION
Specific weight (SIGnature PU-20)	gr/cm ³	ASTM D1475 / DIN 5321 / ISO 2811 @ 20°C	1.3 - 1.4
Specific weight (SIGnature PU-20 Accelerator)	gr/cm ³	ASTM D1475 / DIN 5321 / ISO 2811 @ 20°C	0.87
Tack free time, @ 77°F (25°C) & 55% RH	hours	-	6
Cure rate	Mm/ day	-	3 to 4
Service temperature	°C	-	-40 to 80
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	70
Modulus at 100% elongation	N/mm ²	ASTM D412 / EN - ISO - 527 - 3	0.2
Elongation @ 23°C	%	ASTM D412 / EN - ISO - 527 - 3	>900
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25°C	3,000 to 6,000
Thermal resistance 100 days, 80°C)	-	EOTA TR011	Passed
Toxicity	-	-	No restrictions after full cure
Resilience	%	DIN 52458	>80
Hydrolysis (8% KOH, 15 days @ 50°C)	-	-	No elastomeric property change
Hydrolysis (H ₂ O, 30 days-cycle 60°C to 100°C)	-	-	No elastomeric property change
HCl (PH=2, 10 days @RT)	-	-	No elastomeric property change
Adhesion to concrete	kg/cm ² (N/mm ²)	ASTM D4541	>20 (>2)



Mannheim House, Gelders Hall Road, Shepshed, Leicestershire LE12 9NH

Tel: 08445 766 760 Fax: 08445 766 761

Email: info@singleply.co.uk Web: www.singleply.co.uk