



4.08 XPERT ROOF-PU 570

Rapid Cure, Low Odour, Pure Polyurethane, Liquid Applied Roof Waterproofing Membrane

PRODUCT DESCRIPTION

XPERT ROOF-PU 570 is a rapid cure, one component, cold applied, moisture-triggered, and aliphatic-aromatic pure polyurethane membrane based on unique I-cure technology.

BENEFITS

- Pure Polyurethane
- One hour rain resistant
- One material for horizontal and vertical surfaces (1st and 2nd layer)
- 1- component cold applied
- UV resistant
- High Solid Content
- > 600 % Elongation
- Low VOC and Low odour
- Ponding water test after 24 hours

USES

- Waterproofing membrane on exposed flat and pitched roofs both for new construction and refurbishment of old roofs.
- Adheres to various substrates including concrete, cementitious substrates and bitumen sheets.

APPLICABLE STANDARDS

External fire performance according to BS EN13501:2007 +A1:2009: Euroclass E

Chemical resistance ASTM D1308-02 (2013) Section 7.3: 10%HCl, 10% H2SO4

Water vapor transmission according to ASTM E96/E96-13: procedure A and Water absorption according to ASTM D570-98 (2010)

Crack-bridging performance according to ASTM C836/C836M (ADM/CE/002:2012)

Complies with REACH Regulation (EC) No 1907/2006.

Complies with LEED VOC limit requirements (<250 g/L)

PHYSICAL PROPERTIES

Category	Parameters
Chemical Base	One component, moisture triggered aliphatic-aromatic pure polyurethane
Packaging	25 kg pails with sealed aluminum inner liner
Appearance / Color	Thixotropic liquid / Standard grey (RAL 7038) and dark grey (RAL 7043)
Shelf Life	6 months from the date of production is achieved when stored in accordance with the above recommendations, in original, unopened and undamaged, sealed aluminum inner liner in dry conditions.
Storage Conditions	Store in dry conditions at temperature between +10°C and +30°C
Density	~1.35 kg/L
Solid Content	~95 % by weight (+23°C/50%r.h.)
Flash Point	80 °C (closed cup method)

TECHNICAL INFORMATION

Category	Membrane System	Reinforced System
Tensile Strength	4 N/mm2	8 M/mm2
Elongation at Break	600 %	45 %
Tear Strength	14.5 N/mm	NA
Crack-bridging	2 mm (no cracks)	2 mm (no cracks)
Pull-Off Strength	< 1.5 N/mm2	< 1.5 N/mm2
VOC	<250 g/L	<250 g/L

DIRECTIONS OF USE

SUBSTRATE QUALITY

Concrete / Cementitious Substrate: New concrete should be cured for at least 28 days and should have a pull off strength ≥ 1.5 N/mm² (supported by test on site). Inspect the concrete, including upstands, all areas should be hammer tested. Concrete must be suitably finished by wood float or steel pan. The surface finish must be uniform and free from defects such as laitance, voids or honeycombing.

Mortar joints must be sound and preferably flush pointed. Ensure all ceramic tiles are sound and securely fastened (adhesion strength ≥ 1.0 N/mm²), replacing obviously broken or missing sections.

Asphalt / Bituminous Sheet: Volatiles and organics oils in the sheets can cause bleeding and slight non-detrimental staining. The asphalt must be carefully assessed for moisture and/or air entrapment, grade and surface finish prior to any coating works being carried out.

SUBSTRATE PREPARATION

Concrete / Cementitious Substrate: Cementitious or mineral based substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and to achieve an open textured surface. Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed. High spots must be removed by e.g., grinding. Repairs to the substrate, filling of joints, blowholes/voids and surface levelling must be carried out using appropriate products from the XPERT.

Outgassing is a naturally occurring phenomenon of concrete that can produce pinholes in subsequently applied coatings. Primer will be used on porous concrete and cementitious substrates to block outgassing avoiding pin holing.

Asphalt / Bituminous Sheet: Power wash as required. All major cracks should be sealed to allow continuity of the XPERT ROOF PU 570 system. Asphalt must be carefully assessed for moisture and/ or air entrapment, grade and surface finish prior to any coating works being carried out. Treat blisters by star cutting and removing any underlying water. Allow to dry and re-adhere using torch.

Any other substrate: For any other substrate to be waterproofed with XPERT ROOF-PU 570.

APPLICATION

Prior the application of XPERT ROOF-PU 570 the priming coat if used must have cured tack-free. For the waiting time / over coating please refer to the PDS of the appropriate primer. Damageable areas (handrails, etc.) have to be protected with tape or plastic wrapping.

Detailing: Always begin the installation with the details prior to the installation of the horizontal areas. Follow same process as reinforced system.

Membrane System: Apply the first layer of XPERT ROOF-PU 570 maintaining a wet edge to ensure a seamless membrane. Once the first layer has cured enough (see further down over coating time window) apply the second layer.

Reinforced System: Apply the first layer of XPERT ROOF-PU 570 maintaining a wet edge to ensure a seamless membrane. The roller may require only a little bit of extra material to keep wetted but no further significant material is added at this stage. Once the first layer has cured enough (see further down over coating time window) apply the second layer.