



4.07 FAST ROOF-PU 570

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

PRODUCT DESCRIPTION

FAST ROOF-PU 570 is a rapid cure, one component, cold applied, moisture-triggered, 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 (<250g/L).



PHYSICAL PROPERTIES

Chemical Base	One component, moisture triggered aliphatic-aromatic pure polyurethane
Packaging	25 kg pails with sealed aluminum inner liner
Appearance / Colour	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 aluminium 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

	Membrane System	Reinforced System**)	
Tensile Strength	4 N/mm ²	8 M/mm ²	(ASTM D412)
Elongation at Break	600 %	45 %	(ASTM D412)
Tear Strength	14.5 N/mm	NA	(ASTM D624)
Crack-bridging *)	2 mm (no cracks)	2 mm (no cracks)	(ASTM C836)
Pull-Off Strength	<1.5 N/mm ²	<1.5 N/mm ²	(ASTM D4541)
VOC	<250 g/L	<250 g/L	(ASTM D2369)

SYSTEM INFORMATION

System Structure	Build-UPS		
	Roof Waterproofing System	Membrane System	Reinforced System
	Substrate	Sound new concrete/ cementitious substrate	Sound, existing bitumen sheet membranes and existing concrete/ Cementitious Substrates
	Primer	Refer to relevant section below	
	Build-up	FAST ROOF-PU	570FAST ROOF-PU
	Dry Film Thickness (DFT)	applied in 2 layers. ~1.2 mm	applied in 1 layer. ~1.8 mm
	Total Consumption *)	1st layer: 1 x 0.9 kg/m ² 2nd layer: 1 x 0.9 kg/m ²	1st layer: 1 x 1.2 kg/m ² 2nd layer: 1 x 1.2 kg/m ²



APPLICATION INFORMATION

Consumption	Substrate	Primer	Consumption
	Concrete/ Cementitious	Fast Primer 90	~0.30 kg/m ²
	Substrate		
	Asphalt / Bituminous	Normally not	NA
	Sheet	required *)	
	Any other substrate	Contact Fast Chem Technical Service team	
	*) color change to cured FAST ROOF-PU 570 may occur		
Ambient Temperature	Min. -10 °C; Max. +150 °C		
Substrate Moisture Content	< 4.5% pbw moisture content. Test method: Fast Chem Tramex meter, CM – measurement or oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).		

DIRECTIONS FOR 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 Fast Chem.

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 FAST 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 FAST ROOF-PU 570 please contact Fast Chem Technical Service team for assessment and substrate preparation proposal.

APPLICATION

Prior the application of FAST ROOF-PU 570 the priming coat if used must have cured tack-free. For the waiting time / overcoating 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 FAST 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 of FAST ROOF-PU 570.

Reinforced System

Apply the first layer of FAST 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 overcoating time window) apply the second layer of FAST ROOF-PU 570.

APPLICATION TOOLS

By brush: with a soft bristle brush.

By roller: with a solvent resistant, “non-shedding” synthetic nylon roller.

By airless spray: contact Fast Chem Technical Service team

CLEANING OF TOOLS

Clean all tools and application equipment with Thinner C immediately after use. Hardened and/or cured material can only be removed mechanically.

WARRANTY

This product is warranted to be free of defects in material and workmanship, and conform to FAST Construction Chemicals (“FAST”) quality control standards. All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind, expressed or implied including but not limited to, an implied warranty of merchantability or an implied warranty of fitness for a particular purpose.

