KingProof® PVR

High-quality, polyester-reinforced, UV-resistant PVC roofing membrane.

DESCRIPTION

KingProof PVR is a high-quality, polyester-reinforced thermoplastic PVC waterproofing membrane designed for exposed roofing applications. It combines excellent mechanical properties with long-term durability under harsh climatic conditions.

KingProof PVR is UV-resistant, flame-retardant and stabilised to withstand both high and low temperatures. It is hot-air weldable, forming homogeneous, watertight joints without open flame, and can be mechanically fastened to the load-bearing substrate or installed in a vacuum roof system. A lightly textured surface improves slip resistance during installation and maintenance while providing an aesthetically pleasing finish. It is offered in a range of thicknesses to meet different project requirements.

APPLICATIONS

KingProof PVR is suitable for the waterproofing of a wide range of roof constructions, including:

- Roofs with complex geometry (flat, sloped or curved)
- Exposed flat and low-sloped roofs
- Vacuum roof systems
- Warm / compact roof constructions
- Cold / ventilated roof constructions

ADVANTAGES

- UV-resistant
- High wind-load resistance
- Excellent weathering and environmental resistance
- Strong joints achieved through hot-air welding
- Available in different thicknesses
- Suitable for exposed roofing applications
- Textured surface improves safety during installation and maintenance
- Recyclable, with a low carbon footprint
- No open-flame welding, enhancing safety during installation

STANDARDS

KingProof PVR complies with EN 13956 as per the technical properties table.

METHOD OF USE

KingProof PVR must be installed by experienced and qualified personnel.

Surface Preparation

Concrete roofs to receive KingProof PVR must be sufficiently cured and dry. Remove any poorly attached materials, sharp objects or contamination.

Separation Layers

A separation layer must be applied under all conditions to which the membrane is exposed, to separate incompatible materials and prevent damage. As a migration barrier below the membrane, use a 140 g/m² polypropylene fleece over old bitumen roofs, timber and rubber, or a 120 g/m² glass fleece over EPS/XPS insulation. As a sliding / levelling layer below the membrane, concrete decks require a 300 g/m² polypropylene fleece to reduce friction and mask substrate irregularities.

KINGKRETE®
We Create Future

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TECHNICAL PROPERTIES

	PVR-1.2	PVR-1.5	PVR-1.8	PVR-2.0
Colour	Black, light grey, dark grey; other colours on request			
Thickness (EN 1849-2)	1.2 mm ±10%	1.5 mm ±10%	1.8 mm ±10%	2.0 mm ±10%
Dimensional stability (EN 1107-2)	≤ ±0.5%			
Tensile strength L/T (EN 12311-2 A)	≥ 1100/1050 N/50 mm	≥ 1100/1050 N/50 mm	≥ 1100/1100 N/50 mm	≥ 1100/1100 N/50 mm
Elongation L/T (EN 12311-2 A)	≥ 15%			
Water tightness (EN 1928 A)	Pass (10 kPa)			
Water-vapour resistance, Sd (EN ISO 12572)	16 m	20 m	24 m	27 m
Impact resistance (EN 12691 A)	≥ 400 mm	≥ 500 mm	≥ 700 mm	≥ 800 mm
Static load resistance (EN 12730 C)	≥ 20 kg			
Tear resistance, trapezoidal (EN 12310-2)	≥ 200 N			
Joint peel resistance (EN 12316-2)	≥ 200 N/50 mm			
Joint shear resistance (EN 12317-2)	≥ 1000 N/50 mm			
Foldability at low temperature (EN 495-5)	≤ -25°C			
Exposure to UV (EN 1297)	Pass ≥ 5000 h			
Hail resistance (EN 13583)	≥ 22 m/s (hard substrate); ≥ 50 m/s (soft substrate)			
External fire performance (EN 13501-5)	BROOF (t1–t4)	BROOF (t1)	BROOF (t1–t4)	BROOF (t1–t4)
Reaction to fire (EN 13501-1)	Class E			
Dangerous substances	None			

External fire classification depends on the roof build-up.

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APPLICATION

Unroll each membrane sheet in the intended direction, straighten and tighten it to eliminate wrinkles, and place 2 – 3 fixings at both ends. Fasteners are then installed along both longitudinal edges at the interval defined in the wind-load calculation for the roof. Roll out the next sheet, stretch and fix it at both ends, then weld it to the previous sheet before installing fasteners along the loose longitudinal edge. The line marked along the sheet shows where the overlap is to be (120 mm, or 130 mm for 2 m widths) and where the fasteners are placed (approximately 37 mm from the edge). When fixing onto concrete elements, fixings must never be placed closer than 50 mm from the element edge on concrete, or 100 mm on lightweight concrete. Use an automatic hot-air welding machine with a 40 mm nozzle.

REMARKS

- KingProof PVR must not be installed loose (except on vacuum roofs) or with gravel ballast
- It is important that welding is carried out first, then mechanical fixing

PACKAGING

Grade	Width	Length
PVR-1.2	1.0 / 1.1 / 2.0 / 2.2 m	20 m
PVR-1.5	1.0 / 1.1 / 2.0 / 2.2 m	15 m / 20 m
PVR-1.8	1.0 / 1.1 / 2.0 / 2.2 m	15 m / 20 m
PVR-2.0	1.0 or 2.0 m	15 m

STORAGE

KingProof PVR rolls must be stored in their original packaging, away from direct sunlight, in cool, dry, frost-free conditions and protected on site with tarpaulins. Store horizontally on a pallet and avoid placing pallets of rolls on top of one another.

HEALTH AND SAFETY

KingProof PVR should be welded in a well-ventilated area. As with all construction products, avoid contact with the eyes and skin and wear suitable protective equipment. For further information, refer to the Safety Data Sheet.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local KingKrete representative. KingKrete Inc. reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All products originating from KingKrete's facility are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, ISO 14001 and ISO 45001.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this KingKrete Inc. publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by KingKrete Inc. either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not KingKrete Inc. are responsible for carrying out procedures appropriate to a specific application.

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