KingProof® PVPR

A flexible PVC waterproofing membrane for roofs.

DESCRIPTION

KingProof PVPR is a high quality, UV-resistant, flexible polyvinyl chloride (PVC) waterproofing sheet reinforced with a high-performance polyester mat.

KingProof PVPR is available in "reflecting white" version with the upper side of the membrane (top) treated in an entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the membrane a Solar Reflectance Index (SRI) values that reach 100%.

APPLICATIONS

KingProof PVPR is used in waterproofing of exposed and covered roof systems like:

- Tiled roofs.
- Inverted roofs.
- Green roofs.
- Exposed and mechanically fastened membrane on metal decks roofs.

ADVANTAGES

- Excellent resistance to weathering.
- High UV resistance.
- Highly resistance to puncture and mechanical impact.
- Long lasting, high service life.
- Remains flexible at low temperatures.
- Can be easily welded using hot air even at low temperatures.

STANDARDS

KingProof PVPR complies with EN 13956:2005 for roofing membranes.

LIMITATIONS

KingProof PVPR should not be in direct contact with bitumen, oil, solvent and tar as well as plastics other than PVC. On these surfaces it requires a separation layer of non-woven fabric (> 300 g/m²).

METHOD OF USE

KingProof PVPR must be installed by experienced and qualified personnel.

TECHNICAL PROPERTIES

Technical Properties	KingProof PVPR120
Thickness: EN 1849-2	1.20 (-5%/+10%) mm
Mass per unit area: EN 1849-2	1.50 (-5%/+10%) kg/m²

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Technical Properties	KingProof PVPR150
Colour:	Grey / black
Application temperature:	-15°C to 50°C
Visible defects: EN 1850-2	Not present
Width: EN 1848-2	2.10 (-0.5%/+1%)m
Straightness: EN 1848-2	≤ 30 mm
Flatness: EN 1848-2	≤ 10 mm
Thickness: EN 1849-2	1.50 (-5%/+10%)mm
Mass per unit area: EN 1849-2	1.80 (-5%/+10%) kg/m²
Water tightness: EN 1928	Pass
Reaction to fire: EN 13501-1	Class E
Reaction to external fire: EN 13501-5	Broof (t1), Broof (t2), Broof (t3) (specific versions)
Joint peel resistance: EN 12316-2	≥ 260 N/50 mm
Joint shear resistance: EN 12317-2	≥ 1000 N/50 mm (specimen fails outside bond area)
Water vapour coefficient: EN 1931	21,000 ± 30%μ
Tensile strength: EN 12311-2 Longitudinal Transversal	≥ 1000 N/50 mm ≥ 1000 N/50 mm
Elongation: EN 12311-2 Longitudinal Transversal	≥ 18% ≥ 20%
Tearing strength: EN 12310-2 Longitudinal Transversal	≥ 200 N ≥ 220 N
Resistance to impact: EN 12691/A EN 12691/B	≥ 500 mm ≥ 2000 mm
Flexibility under low temperature: EN 495-5	≤ -30°C
UV exposure: EN 1297	Pass
Hail resistance: EN 13583 Rigid substrate Soft substrate	17 m/s 25 m/s
Dimensional stability: EN 1107/2	≤ 0.3%
Resistance to static loading: EN 12730/B	≥ 20 kg

Technical Properties	KingProof PVPR180
Thickness: EN 1849-2	1.80 (-5%/+10%) mm
Mass per unit area: EN 1849-2	2.20 (-5%/+10%) kg/m²

SURFACE PREPARATION

Surface must be clean, sound and dry. Remove any

poorly attached materials or contaminations. Cover or remove any sharp elements which could damage the PVC membrane. A compatible clean and dry separation layer should be placed between the substrate and the PVC membrane.

APPLICATION

KingProof PVPR can be applied on roofs by two methods:

Fixing method

The membrane is mechanically anchored in the overlapping seams, and loosely laid under ballast layer.

Welding method

Use a manual or an automatic hot air welding machine with a pressure roller to join the overlapping membrane sheets together. The width of the joint must be at least 30 mm. Adjust the temperature and machine speed of the air welding machine according to the ambient conditions.

To ensure all the welding is done correctly, all seams must be tested with screw driver or steel needle after the joint has cooled. Unwelded points must be repaired with a welding tool.

PACKAGING

Each roll is packed in clear LDPE film:

KingProof PVPR120: 1.2 mm x 2.1 m x 20 m.

KingProof PVPR150: 1.5 mm x 2.1 m x 16.5 m.

KingProof PVPR180: 1.8 mm x 2.1 m x 15 m.

STORAGE

Shelf life is 1 year when stored under cover, out of direct sunlight and protected from extremes of temperature.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult KingKrete's Technical Services Department.

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HEALTH AND SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes

and skin immediately. If accidentally ingested, seek

medical attention. Reseal containers after use. Use in well ventilated areas and avoid inhalation.

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 Middle East 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.

* Properties listed are based on laboratory-controlled tests.
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STATEMENT OF RESPONSIBILITY

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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.

KingKrete Middle East
www.kingkrete.com

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