KingProof ®PVPL

A flexible PVC waterproofing membrane for water retaining structures.

DESCRIPTION

KingProof PVPL is a reinforced flexible polyvinyl chloride (PVC) waterproofing sheet with high UV resistance in the top layer and enhanced flexibility and tensile strength from the bottom layer, for lining of water retaining structures.

APPLICATIONS

KingProof PVPL can be used for submerged conditions and in contact with potable water for lining of:

- Water tanks.
- Reservoirs.
- Artificial lakes.
- Canals.

ADVANTAGES

- Excellent UV resistance.
- Resistant to roots and microorganisms.
- Stable even at a wide temperature cycles.
- Excellent mechanical properties.
- Long life expectancy.
- Easily welded using hot air.

LIMITATIONS

KingProof PVPL 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/m^2).

METHOD OF USE

KingProof PVPL must be installed by experienced and qualified personnel.

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 PVPL can be applied by two methods:

Fixing method

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

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.

Technical Properties	KingProof PVPL120
Length: EN 1848-2	20.00 (-0%/+5%) m
Thickness: EN 1849-2	1.2 (-5%/+10%) mm
Mass per unit area: EN 1849-2	1.45 (-5%/+10%) kg/m^2
Reaction to fire: EN 13501-1	E (EN ISO 11925-2)
Water vapour coefficient: EN 1931	20,000 ± 30%μ
Tensile strength: EN 12311-2 Longitudinal Transversal	 ≥ 800 N/50 mm ≥ 800 N/50 mm
Tearing strength: EN 12310-2 Longitudinal Transversal	 ≥ 180 N ≥ 180 N

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 PVPL120: 1.2 mm x 2.00 m x 20 m.
KingProof PVPL150: 1.5 mm x 2.00 m x 20 m.
KingProof PVPL180: 1.8 mm x 2.00 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.

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.

KingProof ®PVPL

Technical Properties	KingProof PVPL150
Colour: Top layer: Bottom layer:	 Light grey Dark grey
Application temperature:	-15°C to 50°C
Visible defects: EN 1850-2	Not present
Length: EN 1848-2	20.00 (-0%/+5%) m
Width: EN 1848-2	2.00 (-0.5%/+1%)m
Straightness: EN 1848-2	≤ 30 mm
Flatness: EN 1848-2	≤ 10 mm
Thickness: EN 1849-2	1.5 (-5%/+10%)mm
Mass per unit area: EN 1849-2	1.90 (-5%/+10%) kg/m^2
Water tightness: EN 1928	Pass
Reaction to fire: EN 135011	E(EN ISO 11925-2)
Joint peel resistance: EN 12316-2	≥ 300 N/50 mm
Joint shear resistance: EN 12317-2	≥ 800 N/50 mm
Water vapour coefficient: EN 1931	20,000 ± 30%µ
Tensile strength: EN 12311-2 Longitudinal Transversal	 ≥ 800 N/50 mm ≥ 800 N/50 mm
Elongation: EN 12311-2 Longitudinal Transversal	 ≥ 10% ≥ 10%
Tearing strength: EN 12310-2 Longitudinal Transversal	 ≥ 180 N ≥ 180 N
Resistance to impact: EN 12691	≥ 700 mm
Flexibility under low temperature: EN 495-5	≤ -30°C
UV exposure: EN 1297	Pass
Water absorption: EN 1847	≤ 0.3%

Technical Properties	KingProof PVPL180
Length: EN 1848-2	15.00 (-0%/+5%) m
Thickness: EN 1849-2	1.8 (-5%/+10%) mm
Mass per unit area: EN 1849-2	2.30 (-5%/+10%) kg/m^2
Reaction to fire: EN 13501-1	F (EN ISO 11925-2)
Water vapour coefficient: EN 1931	20,000 ± 30%µ
Tensile strength: EN 12311-2 Longitudinal Transversal	 ≥ 1000 N/50 mm ≥ 1000 N/50 mm
Tearing strength: EN 12310-2 Longitudinal Transversal	 ≥ 200 N ≥ 200 N

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 manufacturing facilities are manufactured under a management system independently certified to conform to the requirements of the quality standard ISO 9001.

* Properties listed are based on laboratory-controlled tests.

® = Registered trademark of the KingKrete-Group in many countries.

PVPL-R3-2601

KingKrete Middle East
www.kingkrete.com