KingProof® PVPT

A flexible PVC waterproofing membrane for underground structures and tunnels.

DESCRIPTION

KingProof PVPT is a single layer, high quality, homogenous flexible polyvinyl chloride (PVC) waterproofing sheet with a signal layer used for underground structures and tunnels.

The different colours on the two sides (signal layer), light on the exposed surface and dark behind, make it possible to identify immediately any damage to the membrane during installation.

APPLICATIONS

Waterproofing of:

- Underground structures.
- Tunnels.
- Basements.
- Retaining walls.

ADVANTAGES

- High resistance to micro-organisms and root penetration.
- High resistance against harsh components found naturally in the soil and underground water.
- High strength and elongation.
- Flexible in cold temperatures.
- Long life expectancy.
- Easily welded using hot air even at low temperatures.
- Can be recycled.
- With a signal layer that indicates damages and aids visual inspection onsite.
- Temporary UV stability during installation.

STANDARDS

KingProof PVPT complies with EN 13491 and EN 13967.

LIMITATIONS

KingProof PVPT 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 PVPT 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

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 is cooled. Unwelded points must be repaired with a welding tool.

PACKAGING

Thickness (mm)	1.2	1.5	2.0	3.0
Width (m)	2.1			
Length (m)	25	20		

Different thicknesses and lengths are available on demand and for a minimum quantity.

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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.

TECHNICAL PROPERTIES				
Colour:		Grey & black		
Thickness: EN 1849-2	1.20 mm ± 5%	1.50 mm ± 5%	2.0 mm ± 5%	3.00 mm ± 5%
Mass per unit area: EN 1849-2	1.6 ± 0.1 Kg/ m²	2.0 ± 0.1 Kg/m²	2.7 ± 0.1 Kg/m²	4.0 ± 0.1 Kg/ m²
Tensile strength: UNI EN ISO 527-3 / ASTM D638		≥ 15 N/mm²		
Elongation at break: UNI EN ISO 527-3 / ASTM D638		≥ 300%		
Cold flexibility: EN 495-5		≤ -35°C		
Water pressure: (24 h at 10 bar) EN 1928		No leaks		
Resistance to impact: EN 12691	≥ 500 mm	≥ 750 mm	≥ 1000mm	≥ 1800 mm
Resistance to static loading: EN 12730	≥ 20 Kg			
Static puncture: EN 12236	2.0 ± 0.25 kN	2.5 ± 0.25 kN	3.0 ± 0.25 kN	4.0 ± 0.25 kN
Tear resistance EN 12310/2		≥ 100 kN/m		
Microbiological resistance EN 12225		Compliant		
Root resistance UNI CEN/TS 14416		No perforation		
Resistance of welded seam: EN 12317/2		Break outside joints		
Resistance to oxidation: EN 14575		In conformity		
		Pass		

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Thermal aging: EN 1296				
Fire Resistance: EN 13501-1		Euroclass E		
Resistance to acid and alkaline solutions (28 d at 23°C): DIN 16726		± 20% max elongation		

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

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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.

KingKrete Middle East
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