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DATA

PQ 7100
SELF ADHESIVE MEMBRANE

Description

PQ 7100 is a self-adhesive, cold applied modified bituminous waterproofing sheet membrane. Preformed by impregnating and coating a robust, rot-proof, damage-resistant core reinforcement with a polymer-modified rubber compound.

PQ 7100 comes with a fibreglass reinforcement. Plus a choice of carries listed below.

High Density Polyethylene	(HD PE)
Perforated polypropylene	(PP)
Smooth Polypropylene	(SMPP/PVC)

The complete range of PQ 7100 products has, as standard, a siliconized release paper. This protects the adhesive side of the finished membrane during storage in roll form, and is removed on application. A Selvedge provides excellent adhesion at overlaps, i.e. Bituminous Compound to Bituminous Compound.

Specification Compliance

- ASTM C836, D5, D36, D146, D412, D570, D543, D751, D1000, D1004, D4073, E96, E154
- DIN 18530, 53363, 53122, 53455, 52455, 53479
- BS 8102 (1990)
- UNI 8202

Features

PQ 7100 membrane provides an excellent barrier against vapour (such as methane gas) and water, above or below ground, and are ideal for the protection of substructures where corrosive ground water salts are present. PQ 7100 has excellent elongation and recovery characteristics and will therefore accommodate movement. PQ 7100 is also self-sealing so minor puncture. All PQ 7100 membranes, apart form the Aluminium and Slate finishes, must be protected from the elements and site traffic on completion of application. This can be done by using a sand and cement screed.

Uses

The PQ 7100 range of membranes now available is both versatile and easy to use in most construction applications worldwide. Apart from the standard finishes shown above, PQ 7100 is now available in Aluminium and Slate finish. These finishes can be applied to roofs in exposed conditions using just one layer. The standard finish is suitable for Tanking, Foundations, Basements, Footings, Retaining Walls, Kitchens, Bathrooms, Balconies, Podium Deck, Planter and Roof Areas. See Separate Data Sheet for the Aluminium and Slate finishes.

Advantages of PQ 7100

- Ease of application
- Self-Adhesive
- Bonds directly to primed substrate
- Cold applied
- Less hazardous
- Self-Sealing to minor punctures
- Provides a uniform thickness
- Built-in reinforcement
- Fifteen year warranty against defect

Application Procedures / Method Statement

1. Application User Guide

Concrete should be free of voids, hollows, honeycombing, loose or coarse aggregates and sharp protrusions. The concrete surface should be of a floated finish.
Concrete should be at least eight days old.
Concrete Curing Compounds should be tested for compatibility or removed.
All surfaces should be dry and free from dirt, dust, oil and grease.
Forms below horizontal slabs should be removed as early as possible to avoid entrapment of excessive moisture.

2. Priming

Use PQ Primer at the rate of 300 gms/m^2. Spread out evenly, do not over-apply. Allow primer to cure. On curing, any patches of discolouration should be treated again. Only the area that can be covered by membrane in one working day should be primed. Areas left exposed for more than 24 hours should be given a further coat of PQ Primer if area conteminated.

3. Fixing Membrane

Remove the release paper by peeling back not more than 30 cms at a time. Start to unroll the PQ 7100 membrane, keeping the adhesive side face down on the primed surface. Press down the membrane, working from the center to the outer edges. This will expel all trapped air, ensuring good adhesion to the primer substrate that the membrane is being applied to.

4. Overlaps and Seams

PQ 7100 membranes are produced with a selvedge to facilitate forming lap joints, while ensuring continuity of the membrane. Once the first roll has been applied to the substrate, place the next roll alongside overlapping the selvedge, rolling out and aligning properly. Once this procedure is completed, roll back the membrane without changing the given orientation. Then peel back the selvedge release strip from the first roll no more than a metre at a time. Peel back the release paper on the second roll using the method above. The overlaps should then be pressed firmly down using a light roller if possible. End laps should be formed using a minimum end lap of 15 cms. These should also be pressed firmly down or rolled if possible.

5. Slope, Joints and Corner Details

A proper slope to drains should be provided on the slabs, with drainage at membrane level. PQ 7100 should be applied so that the laps shed water. All slab and wall designs should include expansion, control and construction joint detail and be sealed in accordance with standard practice. Fillets should be formed, using either a preformed fillet or sand and cement mortar, for junctions of floors and internal wall angles. Expansion joints may be covered with the membrane, but a tolerance should be allowed, to prevent stain and accommodate movement.

Cover internal angles and vertical corners with a 300 mm wide strip of PQ 7100 covered by a full width strip of PQ 7100. Where possible, external corners should be provided with a chamfer.

6. Sealing Edges and Seams

On vertical applications, PQ 7100 should be applied over the edge of the parapet wall, edge of the slab or top of the foundation. A groove, or chase should be used to terminate the membrane on the vertical surface. A counter-flashing may also be used or the membrane could be terminated by pressing very firmly to the wall. Extra pressure may be necessary to ensure a proper seal. A compatible sealant may be used for all terminations. The membrane can be fitted generally in conformity with B.S. 8102:1990.

7. Protection of Membrane and Backfilling

PQ 7100 should always be protected to avoid damage caused by other trades, backfilling equipment and material. Accessories product such as PQ 2024 polyester fabric reinforcement. PQ-2450 polypropylene typed and PQ 2550 asphaltic protection board to be considered. Protection may not be necessary when backfilling with clean fine sand. However, care should still be taken to ensure that the membrane is not damaged by tools and earth moving equipment. Screeds, topping and tiles should be laid as soon as possible, preferable the same day the membrane is applied. Under no circumstances should the membrane be left exposed for longer periods.

Handing & Storage

All care should be taken in storing PQ 7100. Rolls should be stored vertically and must never be stacked. PQ 7100 must always be stored in dry, covered storage areas.

Application Temperature Range

When application temperature drops below 20°C (68°F), it is essential to heat the primed surfaces before applying the membrane. This can be done with a gas torch or hot air blower. At surface temperature below 5°C (40°F), care should be taken to ensure that all surfaces are free from condensation, ice/frost. Material stored at temperatures below 20°C (68°F) should be left exposed to warmer temperatures for at least 6-8 hours before application.

PQ 7100 is warranted to be free of manufacturing defects for a period of fifteen years.

Technical Data

PROPERTIES	TYPICAL VALUES	TEST METHOD
REINFORCEMENT	60 g/m^2 REINFORCED FIBRE GLASS FLEECE	
ROLL SIZE AND NOMINAL THICKNESS PACKING SIZES	1.5mm (1m x 15m / 1m x 20m) 2mm, 3mm & 4mm (1m x 10m) 25 Rolls per pallet (vertical pack)	
TENSILE STRENGHT OF REINFORCEMENT		
LONGITUDINAL	4300 psi	ASTM – D412 DIN 53455
ELONGATION OF RUBBER		
MODIFIED BITUMEN COMPOUND	>2000%	ASTM – D412
ELONGATION OF TENSILE STRENGTH	300%	DIN 52455
LAP JOINT TENSILE STRENGTH		
LONGITUDINAL	>250 N/5cm^2	
TRANSVERSE	>175 N/5cm^2	
TEAR RESISTANCE		
LONGITUDINAL	71 N	ASTM – D1004
TRANSVERSE	88 N	
TENSILE – TEAR STRENGTH		
LONGITUDINAL	116 N/mm^2	ASTM – D4073
TRANSVERSE 1	12 N/mm^2	
PEEL STRENGTH		
- TO PRIMED CONCRETE	2.01 N/mm^2	
- TO SELF	2.11 N/mm^2	ASTM – D1000
- TO METAL	5.7 N/mm^2	
APPLICATION TEMPERATURE	STANDARD 5℃ - 45℃	
RESISTANCE TO HYDROSTATIC PRESSURE	155 feet	ASTM – D751
PUNCTURE RESISTANCE	250 lbs. NOT PREFORATED AT 25Kgs.	ASTM –E154
SOFTENING POINT	*105-110℃	ASTM – D36
DENSITY	1.08	DIN 53479
PENETRATION AT 25°C	60-90dmm	ASTM –D5

PROPERTIES	TYPICAL VALUES	TEST METHOD
FLEXIBILITY AT LOW TEMPERATURE	-15℃ – NO CRACKING	ASTM – D146
WATER ABSORPTION	0.012% (FULLY WATERTIGHT)	ASTM – D570
WATER VAPOUR PERMEABILITY	$0.01 g/m^2/24hrs$	ASTM – E96
CHEMICAL RESISTANCE	CONFORMS	ASTM – D543
WARRANTED CRACK – BRIDGING CAPABILITY	$^1/_8$ inch.	ASTM – C836

* *THE SOFTENING POINT VARIES BETWEEN 100°C To 110°C DEPENDING UPON CLIENT'S REQUIREMENTS OR COMPLIANCE WITH SPECIFIC STANDARDS.*

WARRANTY

Permaquik Corporation warrants that its products are of the quality represented in its product literature and package markings and, when applied in accordance with its current specifications and application instruction, will performs as stated in its product literature. This warranty applies only to the application of products on approved substrates.
Permaquik Corporation assumes no responsibility for workmanship. Permaquik Corporation shall not be liable or responsible for any incidental, consequential, commercial or exemplary losses or damages resulting from the breach of this warranty and the sole and exclusive remedy under this warranty shall be the replacement, or at its option, a refund of the purchase price of products found to be defective within one (1) year of its original application.
The warranty is in lieu of all other warranties, expressed or implied, and whether of merchantability or fitness for a particular purpose or otherwise. This warranty may not be enlarged or extended by our sales representatives.