

## **PREMOULDED MEMBRANE® VAPOR SEAL with PLASMATIC® CORE**

### **TECHNICAL DESCRIPTION**

PREMOULDED MEMBRANE VAPOR SEAL with PLASMATIC CORE (PMPC) is a permanently bonded multi-ply semi-flexible core board. The core consists of a plasmatic matrix encased in two layers of pure-blown, high-meltpoint asphalt. The three-ply core is sandwiched between liners of asphalt saturated felt and a glass-mat liner. An asphalt weathercoat is applied to the glass-mat liner and covered with a polyethylene anti-stick sheet. PMPC provides a positive, easy-to-install, economical, true vaporproofing and waterproofing system for horizontal applications. Properly applied, it stops moisture migration in footings, concrete floors and structural slabs.

PREMOULDED MEMBRANE VAPOR SEAL with PLASMATIC CORE is both waterproof and vaporproof. It offers a (WVT) water vapor transmission rating of 0.00 grains/sq. ft./hr.,\* the lowest in the industry. The product is the ultimate when a true vapor seal is required. Among its unique features is the built-in protection course which resists job-site puncturing and the abrasive action of backfilling. The exclusive PLASMATIC CORE adds ductility, flexibility, greater tensile strength and excellent handling characteristics.

\*As tested per ASTM E 96, water method.

### **USES**

SEALTIGHT PMPC, when properly applied, is designed to stop moisture migration (liquid or vapor) in footings, concrete floor slabs and structural slabs, which helps to prevent fungus and mold. It is especially useful under slabs overlaid with wood, tile, epoxy and urethane coatings, carpeting and resilient or seamless flooring systems since it helps prevent the warping and buckling caused by moisture migration.

### **MAINTAIN ENERGY EFFICIENCY**

SEALTIGHT Products used in conjunction with structural construction aid in the integrity of other structural systems such as insulation. Because wet insulating materials lose much of their R factor performance characteristics, this reduces the energy efficiency of the structure. SEALTIGHT Products applied for thermal and moisture protection help prevent moisture or vapor penetration into the other systems. These products play a key role in maintaining the structure's energy efficiency.

### **FEATURES AND BENEFITS**

- Offers a virtually impermeable vaporproofing system with the lowest WVT rating available. It is both waterproof and vaporproof
- Installs directly over the tamped grade (no gravel fill or sand needed)
- Offers ductility, flexibility, greater tensile strength and excellent handling characteristics
- Provides the best available deterrent for warping, buckling or delamination of subsequent flooring systems

### **PACKAGING**

	<b>WIDTH</b>	<b>LENGTH</b>	<b>WEIGHT</b>
Sheets	48" (1.22m)	8' (2.44m)	65 lbs./100 sq. ft. (29.48 kg)
Rolls	48" (1.22m)	50' (15.24m)	60 lbs./100 sq. ft. (27.22 kg)

### **ESTIMATING**

When estimating the amount of PMPC required, figure the actual area plus 20% for overlap when using sheets...for rolls, figure actual areas plus 12% for overlap.

### **HANDLING SUGGESTIONS**

**CUTTING...**PREMOULDED MEMBRANE VAPOR SEAL can be cut with a roofer's or linoleum knife using a straight edge.

**BENDING...**To facilitate bending at a change in plane such as at corners or footings, lightly heat the board at the bending area.

**STORAGE...**Handling of PMPC is not critical because of its strength; however, it is advisable to stack the material on smooth ground or a wood platform in storage or at the excavation site. This will eliminate the possibility of the PREMOULDED MEMBRANE sheets deforming or warping.

**POINTING...**Pointing with SEALTIGHT Pointing Mastic should be done wherever an edge is exposed to prevent water from traveling under a sheet.

CONTINUED ON REVERSE SIDE

**STOPS MOISTURE MIGRATION IN  
HORIZONTAL CONCRETE APPLICATIONS**

**THE ULTIMATE VAPOR BARRIER TO  
ELIMINATE COSTLY MOISTURE DAMAGE**

Over 80% of the moisture entering a structure originates in the site...it moves from the grade into the structure both as a liquid (capillarity) and as a gas (vapor). The only effective way to eliminate the costly problems of excessive moisture migration is to completely isolate the structure from the site during original construction with the installation of a true vapor seal membrane that is both waterproof and vaporproof. Material that is vaporproof is completely waterproof; however, not everything that is waterproof is vaporproof. PREMOULDED MEMBRANE VAPOR SEAL with PLASMATIC CORE is both waterproof and vaporproof.

While tremendously strong, even the best concrete is porous. Uncontrolled vapor will move through it, causing dank musty smells...rust and condensation...damage to mechanical equipment...cracked plaster...chipped paint, efflorescence...warped floors, etc. The installation of a true vapor seal under the concrete floor slabs will stop moisture migration.

A true vapor seal must also be durable and tough enough to withstand normal handling, foot traffic, aggregate impact and backfill abrasion. One tear, or a few pinholes will destroy the entire purpose of the installation. Plastic films, laminated film and paper combinations, reinforced building papers and saturated roofing felts are semi-permeable at best, and will permit the passage of air (vapor) through them. Additional information on the hydrologic cycle may be found in W.R. Meadows' Hydrologic Cycle. Manual available upon request.

SEALTIGHT PMPC offers the construction industry a positive, easy to install, economical, true vapor-proofing system solution.

**APPLICATION**

**HORIZONTAL INSTALLATIONS...ON OR BELOW-GRADE:** By installing PREMOULDED MEMBRANE VAPOR SEAL with PLASMATIC CORE on the ground prior to placing the concrete floor, moisture will be prevented from coming through the floor slab.

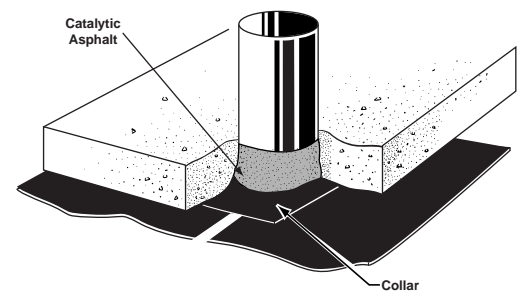
**ABOVE-GRADE...**By placing PMPC on the intermediate structural slab, moisture is prevented from filtering downward, from mechanical floors dedicated to heating and air conditioning equipment. This prevents damage to lower floor levels.

**HORIZONTAL APPLICATION...PREMOULDED MEMBRANE VAPOR SEAL with PLASMATIC CORE** can be applied directly over tamped grade, because it does not require a gravel bed, a bed of sand and/or "crusher rock" prior to the installation of the floor slab, although these practices are acceptable. PMPC works equally well with either side up. However, in areas exposed to prolonged, direct sunlight we recommend poly side up. Material is placed in position by either the "Dutch Lap" method (Figure 1) with laps sealed with SEALTIGHT Catalytic Bonding Asphalt or by the "Butt Joint" method (Figure 2) with joints sealed with SEALTIGHT Detail Strips. These methods provide a permanent, monolithic vapor seal without voids or open seams. If desired, on structural floor slabs of multi-level buildings, sheets may be placed in a bed of hot or cold applied asphalt for continuous adhesion.

**SEALING PROCEDURES**

All protrusions through the concrete slab, such as sewer pipes, water pipes and utility inlets, must have a positive seal between the protrusion and the PREMOULDED MEMBRANE. Place a collar of PMPC at least 12" larger than the protrusion around the protrusion. Seal in place with SEALTIGHT Detail Strips and point around the protrusion with SEALTIGHT Pointing Mastic.

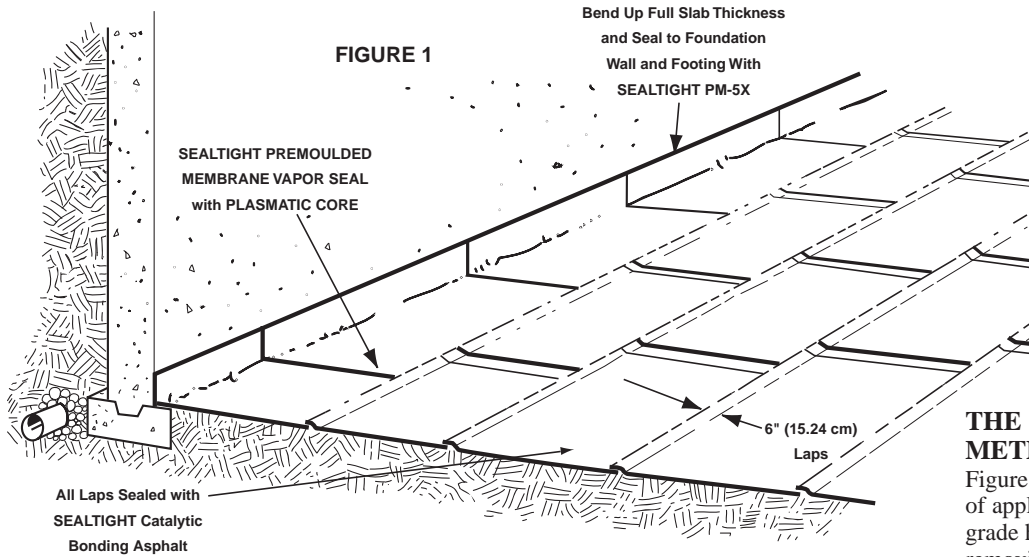
**PROTRUSION DETAIL**



**Application Tools**



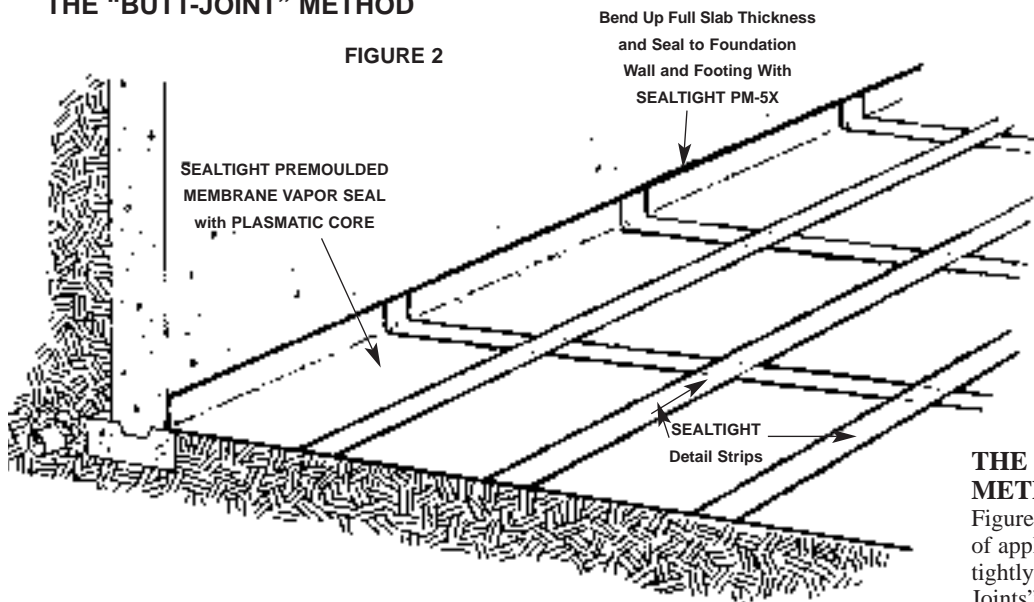
**THE "DUTCH LAP" METHOD**



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Figure 1: The "Dutch Lap" method of applying PMPC to on or below-grade horizontal areas. After removing the polyfilm at the 6" overlap areas, seal all laps with SEALTIGHT Catalytic Bonding Asphalt. Pressure roll or "walk-in" all laps to assure complete adhesion.

**THE "BUTT-JOINT" METHOD**



**THE "BUTT-JOINT" METHOD**

Figure 2: The "Butt-Joint" method of applying PMPC: The sheets are tightly butted together and "Butt-Joints" sealed with SEALTIGHT Detail Strips. The Detail Strip is centered on the joints of the felt side and rolled down with pressure for a positive seal.

**ACCESSORIES**

**BONDING ADHESIVES...SEALTIGHT Catalytic Bonding Asphalt:** A non-setting bitumen that provides a seal that will expand and contract without breaking bond. Use to seal horizontal joints and rebars between impaction sheets on footing. Packaging: 5 Gallon (18.93 Liter) Pails.

**COVERAGE...**5 Gallon per 1000 ft<sup>2</sup> of material.

**SEALTIGHT PM-5X...**A hard-setting bitumen offering strong initial tack, used to adhere **PREMOULDED MEMBRANE** to vertical surfaces. Packaging: 5 Gallon (18.93 Liter) Pails.

**SEALTIGHT Detail Strip...**A sturdy, self-adhering, reinforced tape of polymeric membrane that requires no additional adhesive. Provides a simple, easy and economical method of effectively sealing horizontal and vertical butt joints. Each strip is nominally 9" (.23m) wide and 50' (15.24m) long. Has quick-strip release paper for ease of handling and application. Packaged 4 rolls per carton.

**SEALTIGHT Pointing Mastic** is used for sealing top horizontal terminations or slab protrusions. Packaging: 5 Gallon (18.93 Liter) Pails or 29 oz. (857.65 ml) Cartridges.

For full details, see Product Data Sheet No. 740.

**COVERAGE**

ADHESIVE	JOINT METHOD	PER MSF OF MEMBRANE (APPROX.)
Catalytic Bonding Asphalt*	Sheets: 6" (152.4mm) laps Rolls: 6" (152.4mm) laps	5 gal. (18.93 liters) 3 gal. (11.36 liters)
PM-5X	Sheets only	40 gallons (151.4 liters)
Hot-Mop Asphalt*	Complete	400-500 lbs. (180-230 kg)
Detail Strips	Butt-Joints	416 linear ft. (126.8 meters)
Pointing Mastic**	Detail Strip Edge Terminations	2000 linear ft/gal. (161.0 m/liter)
*Based on minimum of 1/16" (1.59mm) film thickness **1/8"x 1"x 200 lf (3.18mm x 25.4mm x 60.96m)		

**PRECAUTIONS**

**PREMOULDED MEMBRANE VAPOR SEAL** does not negate the need for relief of hydrostatic heads. A complete drain tile system should be placed on the exterior of the footing and, in severe cases, on the interior of the footing as well. If applied to concrete surfaces... repair any spalled areas: fill all voids and remove all sharp protrusions. Adhesive coverage ratios must be adjusted to compensate for surface irregularities and additional coats may be required to provide proper adhesion. For maximum concrete performance and durability, the floor slab concrete design should provide for the lowest possible slump and yet assure complete hydration of the concrete. Refer to Material Safety Data Sheet for complete Health and Safety Information.

**FOR THE MOST CURRENT PRODUCT INFORMATION, VISIT OUR WEBSITE:  
www.wrmeadows.com**



**LIMITED WARRANTY**

“W.R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order.” Read complete warranty. Copy furnished upon request.

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