



PW-100/60 SHEET MEMBRANE WATERPROOFING SYSTEM

PRODUCT DESCRIPTION

PW-100/60 consists of a 60 mil thick SBS modified rubberized asphalt which is laminated on a heavy polyethylene film on the face with a siliconized, release sheet on the adhesive side. The factory controlled thickness assures uniform thickness of every roll, while the inherent waterproofing properties of the SBS modified rubberized asphalt and the polyethylene film provide the best possible water barrier.

BASIC USE

PW-100/60 Sheet Membrane Waterproofing System is designed for use as a waterproofing system on concrete, masonry, metal and wood structures as positive protection against water, salts and certain acids and alkalis. Areas of application include foundation walls, tunnels, between the structural slab and wearing course on plaza decks, parking decks, balconies, terraces, equipment rooms, kitchens, bath rooms, janitorial areas, laboratories, mechanical rooms, in shower pans and on spandrel beams.

USE WITH INSULATED CONCRETE FORMS (ICF's)

Protecto Wrap Company's aggressive adhesives are 100 percent solids and do not contain any chemicals or ingredients that can harm or attack ICF's or any other type of foam product.

LIMITATIONS

- Not recommended in areas where membrane will be subject to continuous exposure to sunlight.
- Do not apply primer or membrane to damp, frosty or contaminated surfaces.
- Do not apply primer or membrane to frozen concrete. Optimum results are obtained when membrane is installed at temperatures above 30°F and below 90°F.
- Not recommended as a pond or tank liner except for "between slab" applications.
- Not recommended for use over sealants containing coal tar. In the event of existing bitumen modified materials, consult your Protecto Wrap Representative.

APPLICABLE STANDARDS

PW-100/60 meets the applicable standards of:

- USN; NAVFAC TS-07111
- GSA; PBS PCD 07121
- VA; H-08-1
- Corps of Engineers; CEGS-07111-3-82
- Federal Construction Guide Spec; FCGS-07111
- American Railway Engineers Association
- UL 790, Class A

PRODUCT SELECTION

According to service needs and weather requirements, either PW-100/60 or PW-100/60 Cold Weather (CW) grades may be used. The system offers six types of primers; #80 Primer is an asphalt base for use on all horizontal applications above 40°F; #100 Primer is a high tack SBS rubber base primer used on all vertical surfaces before application of the membrane and on all surfaces with temperatures between 20°F and 40°F; #6000 water base primer that can be used in temperatures above 40°F. #80 primer and #100 primer are also manufactured in V.O.C. compliant versions.

WARNINGS AND HAZARDS

Protecto Wrap primers and mastic contain combustible solvents.

TECHNICAL DATA		
PROPERTY	ASTM TEST METHOD	RESULTS
Color		White
Thickness (mils)		60 mil
Tensile Strength	D-412	
Membrane		250 psi
Film		5000 psi
Elongation*	D-412	300% min
Permeance	E-96 (B)	0.013 min
Low Temp. Flexibility	D 1970	Unaffected @ -42°F.
Crack Cycling (100 cycles)	C 836	Unaffected @ -25°F.
Peel Strength	D 903-49	9 inch/lbs
Lap Adhesion	D 1876 Mod.	9.5 inch/lbs.
Puncture Resistance	E 154	50
Exposure to fungi (16 wks)	GSA-PBS 07115	Unaffected
Water Absorption	D 1228	.1%
Pliability at -25°F	D146	Unaffected
Hydrostatic head		200 psi

* % of elongation to ultimate failure of rubberized asphalt membrane.

Avoid exposure to open flames, sparks, etc. Avoid breathing vapors. Use in areas with adequate ventilation. Refer to MSDS for important warnings and product information.

INSTALLATION

Surface Preparation: All surfaces shall have a smooth steel troweled finish and shall be clean, free of sharp protrusions, loose aggregate, dust, voids or spalled areas. Broom finish shall not be used. Repair all areas as needed before applying Protecto Wrap primer. Remove all forms as soon as possible to prevent moisture entrapment. Uneven form lines must be ground flush to the wall or deck. Fill holes or voids with non-shrink grout.

Concrete surfaces shall have a minimum cure time of 7 days and shall be clean and dry. Do not apply PW-100/60 over frozen substrates. Use form release agents which will not transfer to the concrete or block walls. Concrete curing compounds must be a resin-base containing no oil, wax or pigment.

Outside corners should be as smooth as possible by rounding or chamfering and free of sharp protrusions.

Masonry wall shall have joints struck flush in order to provide a smooth surface. On rough or porous surfaces, use a well adhered mortar target coat to provide a clean smooth surface. All exposed metal surfaces **are to be clean and free of paint, oil, coatings, rust or any other contaminants.** Wire brush and solvent wipe all metal to ensure a clean surface.

Expansion Joints and Cracks: Pre-strip all slab and wall cracks over 1/16" in width and all construction and control joints with a 12" wide strip of pre-cut PW-100/60 membrane. Joints less than 1/4" with movement less than 25% use a 12" wide strip of PW-100/60 to cover the opening. All joints 1/4" and larger or having movement greater than 25% must be treated as a standard expansion joint. For expansion joints follow an approved sealant manufacturer's recommendation for design and sealant application. Place a 12" strip of PW-100/60 face down over the expansion joint area to create a slip plane over the joint. Cover the entire deck with the standard width PW-100/60 applying the material from the low point of the slope to the high point in a shingling effect.

Protrusions and Drains: Areas around pipe, conduit or any protrusions through the membrane should be treated with a 6" wide strip of JS500 detail tape. JS500 detail tape should be forced and formed to fit tightly to the protrusion and the deck or wall. At the drain opening apply a light coat of primer and allow to fully dry. Cover drain at least 6" past all perimeters with JS500 detail tape. Remove release film and make an X cut and form into the drain, making sure the membrane has 100% contact to the primed metal drain surface. Double ply with a full sheet of

PW-100/60 over the JS500 detail tape, cut and form around or into the protrusion or drain. This should be followed with a troweled bead of JS-160H mastic at any drain, conduit or protrusion where cutting or forming of the membrane is required.

Corners: Use of cant strips or fillets and JS500 detail tape are recommended for all inside horizontal corners. Wood or fiber cant strips are not recommended. 1" fillet may be formed with non-shrink grout, polyurethane sealant, epoxy mortar or latex modified cement mortar. Do not use JS160H Mastic as a fillet. After application of primer and JS500 detail tape, terminate membrane a minimum of 3" beyond the detail tape.

All outside corners shall be double covered to a minimum of 6" each side of the axis of the corners. This can be accomplished by applying a 12" wide strip of PW-100/60 membrane, then covering with a full width sheet. All terminations and overlaps within 12" of corners shall receive a troweled layer of JS160H mastic.

Apply a troweled bead of JS160H mastic to the overlap at all vertical/horizontal transitions on all inside corners. Mastic should be troweled 3" up and 3" out from the transition on the seam. 60 mil wet film maximum thickness.

Priming: Apply by spray or roll with long nap roller at 150-250 square feet per gallon, depending upon type of primer (#6000 water base primer will yield 500 to 600 square feet per gallon) and the porosity of the surface. Primed surface shall be free of runs, puddles or excessive primer. Primer has a satisfactory cure when it will not transfer when touched. Primed areas not covered within 8 hours must be reprimed.

Application of Horizontal Surfaces: Apply PW-100/60 from low to high point, so laps will shed water. Overlap edge seams 2 1/2", end seams 6" and staggered. Snap a chalk line for a starting point. Pull 2+ feet of release paper and place adhesive side of membrane against chalk line. As the roll is dispensed, simultaneously roll the release paper and maintain alignment along the chalk line. Apply pressure with broom, squeegee or roller to entire membrane surface to obtain maximum contact with the primed surface and eliminate wrinkles, fishmouths and entrapped air. **Apply a troweled bead of JS160H mastic at all terminations at the end of each work day. All "T" joints, endlaps and detail cuts should receive a troweled bead of JS160H mastic the same day of application.**

Application on Vertical Surfaces: After detail work with JS500 detail tape is accomplished install PW-100/60 in lengths of 8' or less. Overlap edge seams 2 1/2". On walls above 8', apply in 8' sections, starting at the lowest point with the higher section overlapping the lower section 6". Roll or squeegee the entire membrane surface to gain maximum surface contact with the primed surface. Roll or squeegee downward in the center of the membrane working outward to the edges. Special emphasis should be placed on the top 10" edge of the membrane and on all overlaps.

Application on Block Walls: For block wall waterproofing use a heavy coat of #100 primer and allow primer to fully cure. Apply a second coat of primer to the top 10" of the block wall. When the second coat of primer is tacky but not wet apply PW-100/60. Roll firmly to gain maximum surface contact. Special emphasis should be placed on pressure rolling the top 10" of the membrane and along all overlap seams.

Terminations: If the membrane must terminate on a vertical surface, use of a reglet or counter flashing is recommended. Press termination edge firmly with a hammer handle or equal. Apply JS160H mastic to all terminating edges.

PW-100/60 shall be installed on the base of the foundation wall, over the edge of the footing a minimum of 3". Apply JS160H mastic to all vertical and horizontal terminations.

Note: Failure to use adequate pressure at terminating edges could result in a poor seal and potential leak. The use of mastic is not a substitute for a good seal.

Repairs: Carefully inspect applied membrane before covering to ensure the membrane is free of large blisters, fishmouths, voids due to misalignment at seams or damaged areas and repair as needed. If repair is required, clean area and lightly prime. Cut PW-100/60 repair patch to cover the damaged area and extending onto adhered membrane at least 6" on all sides. Firmly press repair section to ensure a good seal. Apply JS160H mastic to terminating edges of patch.

Protection: PW-100/60 Sheet Membrane must be protected from damage by future operations and other trades. The applicator shall install suitable protection course material applicable to jobsite conditions, to protect the membrane. The protection course may be Protecto Drain-2000 (H or V), Protecto Board (H or V) or Protecto Wrap approved equal.

Install protection course on vertical walls immediately after installation of the PW-100/60 Sheet Membrane. Install protection course on horizontal application immediately following flood test. If flood test is delayed, install a temporary covering to protect the finished membrane from damage by other trades.

Flood Test: Mastic must cure at least 24 hours prior to flood testing and 48 hours prior to flood testing on all planter boxes. Perform flood test with a minimum of 2" and a maximum of 4" of water for 24 hours. Drains should be plugged and barriers placed to contain the water. All leaks shall be repaired prior to covering the membrane. Reflood test membrane once repaired.

NOTE: WARRANTY CAN NOT BE ENFORCED WITHOUT DOCUMENTATION OF LEAK FREE FLOOD TESTING SUBMITTED TO PROTECTO WRAP COMPANY WITHIN 30 DAYS AFTER TESTING. THE APPLICATOR AND GENERAL CONTRACTOR MUST SIGN THE SUCCESSFUL FLOOD TESTING DOCUMENT.

Storage: Store all materials inside in a dry space at temperatures between 50°F and 90°F. Do not store in direct sunlight. Do not remove from box until ready to use. For cold weather applications, store Protecto Wrap materials in a heated air space at 50°F or above for at least two days prior to application. Only take out the amount of material that can be applied within two hours. Store materials away from flames or sparks.

LIMITED WARRANTY

Protecto Wrap Company warrants materials to be free of defects and will replace or, at our option, refund the purchase price of any materials proven to be defective. THIS LIMITED WARRANTY IS IN LIEU OF ANY OTHER WARRANTY OR GUARANTEE, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL PROTECTO WRAP COMPANY BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES NOR SHALL LIABILITY, IF ANY, EXTEND BEYOND THE PURCHASE PRICE OF THE MATERIAL. PROTECTO WRAP COMPANY DOES NOT WARRANT THE WORKMANSHIP OF THE APPLICATOR.



PROTECTO WRAP COMPANY

2255 South Delaware
Denver, CO 80223
(303) 777-3001 (800) 759-9727
FAX (303) 777-9273
www.protectowrap.com