Premium Building Products That Protect

Protecto Universal Primer Free Membrane

Self-adhered Flashing / Air Barrier / Vapor Retarder
Thru-Wall Flashing / Below Grade Waterproofing Membrane
with Super Stick technology

TECHNICAL DATA

Properties	Test Method	Test Results
Color		White
Thickness		17 mil
Tensile	ASTM D1970	MD = 939 psi / CD = 1252 psi
Self Sealability / water penetration resistance around nails	ASTM D1970 Section 7.9	After 24 hour – Pass After thermal cycling - Pass
90°Peel adhesion	ASTM D3330, Method F 1.5 lbs/in min	Pass on OSB, Aluminum, Vinyl, Plywood, Stucco, Fiber-cement, glass-faced gypsum and ICF foam
90°Peel adhesion after accelerated aging	ASTM D3330, Method F 1.5 lbs/in min	Pass
90°Peel adhesion at elevated temperature	ASTM D3330, Method F 1.5 lbs/in min	Pass @ Level 3 - 80°C (176°F) 7 days
90°Peel adhesion after thermal cycling	ASTM D3330, Method F 1.5 lbs/in min	Pass
90°Peel adhesion after water immersion	ASTM D3330, Method F 1.5 lbs/in min	Pass
Cold temperature pliability	ASTM C765	Pass
Peel from itself (overlap)	AAMA 711 Annex 2	Pass
Air Permeance Test	ASTM E2178	Measured Air Flow (L/s/m2) @ 75Pa 0.00005 avg
Air Leakage	ASTM E2357	Opaque Wall - initial @ 75 Pa infiltration = 0.0152 exfiltration = 0.0169 Opaque Wall – Post Cycling @ 75 Pa Infiltration = 0.0152 exfiltration = 0.0183 Penetration Wall - initial @ 75 Pa Infiltration = 0.0169 exfiltration = 0.0188 Penetration Wall - Post Cycling @ 75 Pa Infiltration = 0.0197 exfiltration 0.0201
Wind Pressure Loading @ 1,440 Pa	ASTM E2357	Opaque Wall – Positive Load Deflection 0.018 Negative load Deflection 0.065 Penetration Wall – Positive Load Deflection 0.017 Negative Load Deflection 0.039
Water Vapor Permeance	ASTM E96	Procedure A (desiccant) = 0.06 perms avg.
Flame Spread / Smoke	ASTM E84-15a	Class “A” Flame Spread 5/Smoke Developed 45
Puncture Resistance	ASTM E154 / E154M-08 section 10	Average Max Load = 184 lbs Deflection at Max Load = 2.11(in)
Tensile Properties	ASTM D882-12	Tensile Strength (psi) MD=105 / CD=74 Elongation (%) MD=46 / CD=38

Subject to change without notice Visit www.protectowrap.com for the latest version.

Hydrostatic Pressure Resistance	AATCC Method 127	Pass @ 24 inches (60 mbar) for 5 hours
Peel Strength Adhesive Bond	ASTM D903-98 (180° angle)	Aluminum 4.0 (lbf/in) Glass Faced Gypsum 4.4 (lbf/in) Concrete 4.4 (lbf/in)
T-Peel Resistance	ASTM D1876-08	1.8 (lb/in of width)
Cold Temperature Flexibility	ASTM D1970/D1970M-17	Pass @ -20°F
Self Seal-Ability	ASTM D1970/D1970M-17	Pass @ 5 inches of water column
Pull-Off Strength Test	ASTM D4541-09	Aluminum 17(psi) Glass Faced Gypsum 14 (psi) Concrete 13 (psi)
Tensile Tear Strength	ASTM D4073-06	MD = 124 (lbf) CD = 97 (lbf)
Crack Bridging Test	ASTM C1305 / C1305M-16	Pass – 10 cycles @ 1/8” movement - No cracking, splitting, pinholes or other defects observed
NFPA 285 Compliant Assemblies	Comparative ASTM E1354	With Various Insulations in NFPA 285 Assemblies
Hydrostatic Pressure Resistance	ASTM D5385	1 hour @ 100 PSI (overlap and field of membrane)
Water Absorption	ASTM D570	2 Hour Immersion – 0.004% 24 Hour Immersion – 0.05% Long Term (2 Week) Immersion – 0.08%
Puncture	ASTM E154	189.8 PSI / 29.85% Deflection / 31.7PSI load at distance trap
Elongation	ASTM D412	MD = 20% CMD = 16 %
In-Service Temperature		-45ºF/-42ºC to 300°F/148.9°C
Installation Temperature		-20ºF/-28ºC to 125°F/51.6°C*
Solubility to Water		Insoluble
UV Stability		6 Months

PACKAGING
Roll Width: 3, 4, 6, 9, 12, 18, 24, 36”
Roll Length: 50’

DESCRIPTION
Universal Primer Free Membrane is a high performance self-adhered waterproof membrane, designed to be used for many applications. **Universal Primer Free Membrane** can be applied down to -20°F (-28°C) without the use of primer or mechanical fasteners on most substrates.

FEATURES
- Meets or exceeds National Air Barrier requirements
- Class I Vapor Retarder
- Class A Fire Rating for Flame spread / Smoke developed
- AAMA 711-22 compliant
- Meets and/or exceeds CSA A440.4-07 requirements for window and door flashing
- Compatible with expanding insulating spray foam applications
- 6 month exposure rating
- Fully adhered system
- No Primer needed[1]
- Split release liner for easy application
- Seals around properly installed fasteners
- Can be applied to damp surfaces
- No VOC’s, HFCC’s, nor CFC’s

- Compatible with and will adhere to most construction surfaces[1], wood, concrete, CMU Block, OSB, Plywood, glass mat exterior sheathing products, foam insulation board, ICF, metal, TPO and EPDM
- Forms a positive air barrier/vapor retarder

USES
Used as a primerless self-adhered window and door flashing, a primerless self-adhered air barrier/vapor retarder in cavity wall construction, as a primerless self-adhered Thru-Wall flashing in everyday construction and as a primerless self-adhered below grade waterproofing membrane. Safe for use on most commonly used construction substrates.

LIMITATIONS
Not recommended for use on substrates with standing water, visibly wet surfaces, dirty surfaces, frozen surfaces or surfaces contaminated with foreign substances such as grease, oil or solvents.

Do not exceed 6 month UV exposure

Not recommended for use when in direct contact with PVC type roofing membranes.

*Note: **Universal Primer Free Membrane** can be applied in extreme cold/hot weather; however, Protecto Wrap Company does not recommend applying tapes below 0ºF (-17ºC) or above 125°F (51.6°C) due to health and safety reasons.

SHELF LIFE
Universal Primer Free Membrane maintains optimum initial adhesion to substrates when used within twenty four months from the date of manufacture.

STORAGE
Universal Primer Free Membrane should be stored in the original, unopened container at ambient temperatures between 40°F to 90°F (5°C to 32°C). Storage area should remain dry and out of direct sunlight. Do not remove materials from original containers until ready for use. Do not double stack pallets.

PREPARATION
All surfaces shall be clean, dry and free of any foreign materials. The surface shall be free of gaps, sharp edges and protrusions. Damaged areas on substrate should be repaired prior to application of the membrane.

Metal surfaces may need to be solvent wiped and/or abraded to achieve optimum adhesion.

Concrete and Masonry
All concrete surfaces shall have a smooth steel troweled finish or better 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 **Universal Primer Free Membrane**. Remove all forms as soon as possible so as to prevent moisture entrapment. Uneven form lines must be ground flush to the wall. All tie holes must be filled. All vertical concrete surfaces shall have a minimum cure time of 7 days and shall be clean and dry. Allow concrete to dry completely following precipitation. On horizontal surfaces a mat moisture test should be completed before application. Do not apply **Universal Primer Free Membrane** 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. If **Universal Primer Free Membrane** is going to be applied to a concrete or wood surface where other curing compounds or wood treatment are to be used, please contact Protecto Wrap Company for recommendations. If additives have been placed in the concrete that could slow the dissipation of moisture, contact Protecto Wrap Company before installation of **Universal Primer Free Membrane**.

Masonry walls shall not have struck joints. Make sure all masonry joints on block and brick walls are struck flush in order to provide a smooth surface. On rough or porous surfaces, use a well adhered parget/mortar coat to provide a smooth surface.

Corners

Use of Cant strips or fillets are recommended for all inside horizontal corners. Cant strips of epoxy mortar, latex modified cement mortar or urethane sealants should be used on all inside horizontal corners (these products should be fully cured prior to application of the membrane). Do not use JS 160H Mastic or Protecto Sealant 25XL as a filler/cant strip. Wood or fiber cant strips are not recommended.

[1] Note: Protecto Wrap Company recommends testing substrates for adhesion prior to full application. See Technical Letter - Surface Preparation at www.protectowrap.com.

APPLICATION

Cut the **Universal Primer Free Membrane** to length, remove a small portion of the release liner and apply to the substrate, continue to remove the release liner as you firmly roll into place using a "J" roller or hand roller to smooth out any wrinkles, air bubbles or creases. For all applications, overlaps, side laps and end laps should be a minimum 2" (5.08 centimeter) and should be firmly rolled to ensure adequate adhesion. In soffit type applications, the membrane should be mechanically fastened at the perimeter edges and may require fasteners in the field of the membrane to prevent de-bonding.

Window or Door Flashing

Apply first piece of **Universal Primer Free Membrane** to the rough opening sill; the **Universal Primer Free Membrane** should overlap the housewrap or building paper at the sill. Firmly roll into place using a hand roller (J-roller, Laminate roller) to smooth out any wrinkles, air bubbles or creases that would allow water to migrate behind the membrane. Set window into the rough opening and fasten per window manufacturer's instructions. Apply vertical pieces of **Universal Primer Free Membrane** over the nailing flange at the sides of window frame and directly onto the exterior sheathing, firmly roll into place using a hand roller to smooth out any wrinkles, air bubbles or creases. Apply the final piece of **Universal Primer Free Membrane** over the top nail flange and overlap the vertical side pieces adhering directly to the exterior sheathing, firmly roll into place using a "J" roller or hand roller to smooth out any wrinkles, air bubbles or creases. Apply housewrap or building paper over the **Universal Primer Free Membrane** at the sides and head of the window. Use housewrap tape or equivalent to seal the housewrap to the exterior of the **Universal Primer Free Membrane**. Window and door installation details may be found at www.protectowrap.com or by calling 800-759-9727.

Air Barrier

In full coverage envelope applications, it is very important that the **Universal Primer Free Membrane** is tightly sealed into the roofing and below grade waterproofing systems and perimeter flashings to retain the integrity of the air/vapor barrier throughout the entire structure. Pipe penetrations, vents, or any other penetrations through the wall should be detailed per our detail drawings using one or more of the following products, Universal Primer Free Membrane, Form Flash I, Form Flash II, Protecto Sealant 25XL, JS 160H Mastic. For full air barrier detail drawings visit www.protectowrap.com or call 800-759-9727 for technical assistance.

When applying to exterior gypsum products (i.e. Dens Glass Gold) primer is not needed, provided the surface is clean, dry and free of any contaminants and is firmly rolled to ensure full adhesion.

Below Grade Waterproofing

At the footing, run a strip of **Universal Primer Free Membrane** centered along the footing joint reaching a minimum of 3" up the vertical wall and 3" onto the footing.

Inside corners shall be covered with a minimum 6" wide strip centered in the corner starting at termination point at the top of the wall and running over the footing a minimum 3".

Outside corners shall be double covered to a minimum of (6) six inches on each side of the axis of the corners. This can be accomplished by applying a 12" wide strip of membrane, then covering with a full width sheet, or by over-lapping the full width a minimum of 6" from the axis on both sides of the corner. Outside corners should be as smooth as possible by rounding or chamfering the edge and should be free of sharp protrusions.

All terminations and overlaps within 12" of any corner should receive a troweled layer of JS 160H Mastic or Protecto Sealant 25XL.

Note: In the case of **ICF (Insulated Concrete Foundation)** Protecto Sealant 25XL is the only sealant recommended for terminating the membrane edges, Protecto Sealant 25XL is compatible with the ICF foam.JS 160H Mastic is not compatible with the ICF foam and is not recommended for use.

For the main field of the wall, cut the **Universal Primer Free Membrane** to length. The membrane should start at the termination point at the top of the wall and extend down, overlapping the footing a minimum 3”. Peel back approx. 6” of the release liner from the back of the membrane and apply the top edge of the membrane firmly onto the surface. While removing the remaining release liner, firmly roll or squeegee downward in the center of the material working outward to the edges to ensure the membrane is fully adhered and to remove and creases, wrinkles and air pockets.

Note: **Universal Primer Free Membrane** must be rolled or squeegeed over the entire membrane surface to gain maximum surface contact to the wall. Special emphasis should be placed on the top 10" edge of the membrane and on all overlaps of the membrane.

Note: At the end of the working day, or when application is interrupted by change in construction scheduling, all edges of the membrane at terminations should have a troweled bead of JS 160H Mastic or Protecto Sealant 25XL applied. JS 160H Mastic or Protecto Sealant 25XL shall be applied to the top edge of the applied membrane extending at least (1) one inch onto the wall and (1) one inch on the membrane. This is also required when the membrane extends down off the vertical portion of the wall and onto the footing or at any other termination of the membrane. JS160-H Mastic and Protecto Sealant 25XL should be troweled to achieve a maximum 60 mil wet film thickness.

Pipe Penetrations
Pipe penetrations or any other penetrations through the foundation wall should be detailed per our detail drawings using one or more of the following products, Form Flash II, Protecto Sealant 25XL, JS 160H Mastic. Pipes and other penetrations should be secured to the foundation prevent movement prior to detailing.

Drainage Boards and Footing Drains
Waterstops, footing drains and most drainage boards are compatible and may be used in conjunction with **Universal Primer Free Membrane**.

A good drainage design at or near the footings along with a drainage mat will assist in having a waterproof system.

Protection of Membrane
Universal Primer Free Membrane is not designed for long term exposure to sunlight and shall be protected by a suitable weather resistant system.

In order to prevent damage to the membrane, drainage boards or suitable protection board should be applied the same day of application and backfilling done as soon as possible.

Protection board must be suitable to withstand backfill. If other trades are allowed on or near membrane, the Contractor should make them aware of the waterproofing. They should take care in working around the installation of membrane and report any consequential damages to the Contractor for repair.

REPAIRS
If membrane is damaged and requires repairing, clean the area to remove and dirt or debris a minimum 6" beyond the damaged area. Cut membrane patch so as to cover the area a minimum of 6” in all directions, apply patch to area and roll firmly. A troweled bead of JS 160H Mastic or Protecto Sealant 25XL shall be applied on all edges of the patch and in conjunction with any repair.

* Additional methods and details can be found at www.protectowrap.com or call (800) 759-9727.

CLEAN UP
Dispose of waste in accordance with local requirements. Control worksite so that boxes, packaging and release liner do not present a hazard.

Boxes, packaging materials and release liner can be recycled.

CAUTION
Protecto Universal Primer Free Membrane has an aggressive adhesive, we recommend removing 3” to 6” of the release liner at a time while installing to help prevent the tape from sticking to itself.

Note: It is very important in full coverage envelope applications that the **Universal Primer Free Membrane** is tightly sealed into the roofing and below grade waterproofing systems and perimeter flashings to retain the integrity of the air barrier throughout the entire structure.

PVC type roofing membranes may contain high concentrations of plasticizers that may react with the adhesive.

Do not adhere **Universal Primer Free Membrane** to skin, removal may cause loss of hair, skin irritation and/or bleeding.

Protecto Wrap Company recommends the use of safety glasses and gloves. Protecto Wrap Company recommends the use of appropriate fall protection when working above ground level.

LIMITED WARRANTY
This product is covered by the Protecto Wrap Standard 10 Year Limited Warranty.

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