

PVC GEOMEMBRANE

(Poly Vinyl Chloride)

- Landfills, Landfill Caps, Wastewater Treatment Ponds, Water Reservoirs, Golf Course Ponds, and Decorative Water Features
- Available in thickness of 20, 30, 40, & 60 mils
- Fabricated in panels up to 25,000 sf
- Easily installed and seamed using adhesives
- Highly flexible
- Available in fish grade & oil resistant
- 20 year material warranty (must be covered with 12” clear fill)



FAQ – PVC (Frequently Asked Questions)

❖ **How cost effective is PVC?**

PVC outlasts and outperforms many traditional materials. Because 50% of its base polymer comes from common salt – an inexpensive, renewable resource – it is also much preferred to substitute materials that deplete natural resources.

❖ **Can a PVC liner stand up to sunlight?**

A PVC liner covered with at least 12 inches of clean fill will last for decades. It must be protected from exposure to direct sunlight.

❖ **Will roots or vegetation bother a PVC liner?**

PVC liners resist root penetration. However, some vegetation could penetrate the liners. This can be avoided by sub-grade soils prepared to be free of roots and organic material.

❖ **What does chemical resistance mean?**

A PVC liner will survive exposure to a large variety of chemicals, even though the chemical could have some effects on the liner, without causing the liner to fail. If you have a specific concern, give us a call.

❖ **What's all this about smooth and textured?**

30 mil PVC or greater already has an embossing on one side, processed during manufacture that provides a controlled pattern. This embossing helps PVC, already known for its flexibility, to conform to and 'grip' the contours of the ground.

❖ **Can a PVC liner be placed on a slope?**

Slopes should be no greater than 3:1 and require mechanically securing a liner by means of an anchor trench around the perimeter.

❖ **Can I install a PVC liner myself?**

Garden pond projects and ornamental features can readily be self-installed using adhesives on any liner seams. If you have a large installation or have specific site needs and you need help, we can provide a wide range of assistance. Please do not hesitate to contact us.



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❖ **There are wrinkles when I lay out the liner, is this ok?**

Yes, thermal contraction and expansion causes a liner to grow or shrink. The liner should be stretched over the prepared subgrade and 'pulled' taut and 'relaxed' but not overstretched.

However, care should be taken to avoid wrinkles in the seam area and around mechanical attachments.

❖ **Can I test for leaks myself?**

CLI tests its seam lengths for leaks (non-destructive testing) using air testing.

❖ **Is installation of PVC weather or climate dependent?**

Most of the time, if you can stand the temperature you are working in, so can the liner. Generally, if the temperature is above 104° or below 32° degrees, you can seam your liner if certain precautions are observed. At -25° a PVC liner becomes less flexible for installation. If you are in doubt, CLI can help supervise installation or fully install your liner.

❖ **What maintenance is needed for a PVC liner?**

None, properly installed PVC liners are generally maintenance free.



N94W14330 Garwin Mace Drive
Menomonee Falls, WI 53051

Poly Vinyl Chloride (PVC)

- ✓ **20 year material warranty**
- ✓ **Available in thickness of 20,30,40 & 60 mils**
- ✓ **Highly Flexible**
- ✓ **Fabricated in panels up to 25,000 sf**
- ✓ **Easily installed and seamed using adhesives**
- ✓ **Available in fish grade and oil resistant**
- ✓ **Suitable for GC Ponds, Water Features, Landfills & Irrigation Ponds**



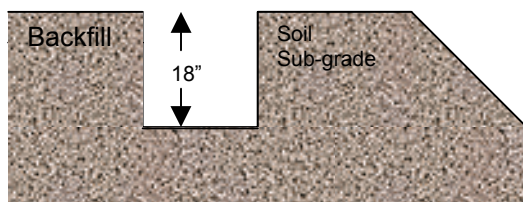
Poly Vinyl Chloride (PVC), is a highly flexible liner that is suitable for landfills, landfill caps, wastewater treatment ponds, water reservoirs, golf course ponds and decorative water features. This material can be fabricated into panels up to 25,000 sf and shipped to site for installation using wedge welders or adhesives. PVC can be self-installed using adhesives, installed using customer provided labor and a supervisor or a turnkey installation provided by a professional installation crew. For extended use, this material must be covered with a minimum of 12" (1 foot) of clean fill. This material is available in a variety of formulations including fish grade and oil resistant. PVC is available in thickness of 20 mil, 30 mil, 40 mil & 60 mil.

Call toll free 866 437 6839

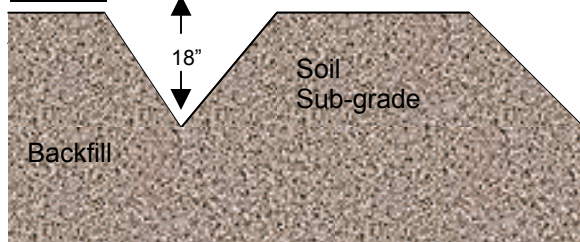
Typical Property	Test Method	20 mil	30 mil	40 mil
Gauge (nominal)		20	30	40
Thickness	ASTM D1593	19	28.5	39
Specific Gravity	ASTM D792	1.2	1.2	1.2
Tensile Properties	ASTM D882			
Break Strength	Method A (MD & TD)	48	73	97
Elongation at Break	Method A (MD & TD)	350	350	400
Modulus at 100%	Method A (MD & TD)	23	34	41
Tear Resistance, lbs./in.	ASTM D1004, Die C	6.5	8.5	10.5
Low Temp pass	ASTM D1790	-26 °C	-29 °C	-29 °C
Dimensional Stability	ASTM D1204 (MD & TD)	4	3	3
Water Extraction	ASTM D3083	0.15	0.15	0.2
Volatile Loss	ASTM D1203 (A)	0.9	0.7	0.5
Resistance to Soil Burial	ASTM D3083			
Breaking Factor		5%	5%	5%
Elongation at Break		20%	20%	20%
100% Modulus		20%	20%	20%
Water Vapor Transmission	ASTM D814, max		-----5.0 X 10 ⁻⁹ cm/sec-----	
Hydrostatic Resistance, lbs./in ²	ASTM D751 (A)	68	100	120
Minimum Specifications for Factory Fabricated Seams:				
Peel Strength, lbs./in.		12.5	15	15
Shear Strength, lbs./in.		38.4	58.4	77.6

Anchor Trenches

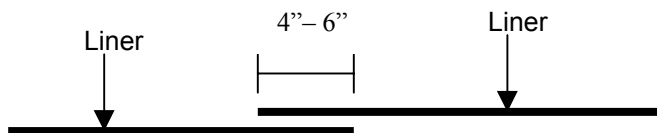
U-TYPE



V-TYPE



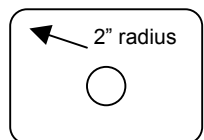
Field Seams



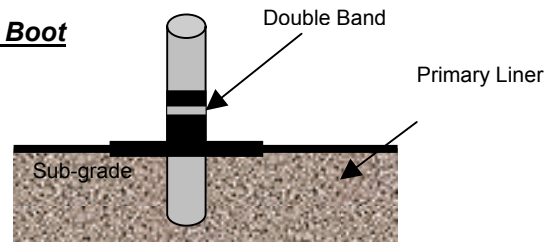
Heat Bonds are 2" in width, single or dual track.
Adhesive Bonds are 4" – 6" in width.

Pipe Boots

Cut undersized hole in center of sleeve. Stretch over pipe, which creates flange of material. Wrap pipe 12" and tie into flange of material. Stainless steel clamp sleeve to pipe.

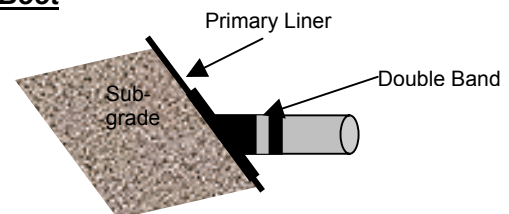


90° Boot



Weld, heat or glue, boot skirt to primary liner

Slope Boot



Weld, heat or glue, boot skirt to primary liner

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