



**Pond Liners**  
Water Containment Products  
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# PVC

## PRODUCT DATA SHEET

### PVC Geomembrane Specifications PGI 1104 Specifications<sup>1</sup>

Certified Properties	ASTM	PVC 10	PVC 20	PVC 30	PVC 40	PVC 50	PVC 60
Thickness	D-5199	10 ±0.5 mil 0.25±.013mm	20 ±1 mil 0.51 ± .03 mm	30 ±1.5 mil 0.76 ± .04 mm	40 ±2 mil 1.02 ± .05 mm	50 ±2.5 mil 1.27 ± .06 mm	60 ± 3 mil 1.52 ± .08 mm
Tensile Properties <sup>3</sup>	D-882 <sup>4</sup> Min						
Strength at Break		24 lbs/in 4.2 kN/m	48 lbs/in 8.4 kN/m	73 lbs/in 12.8 kN/m	97 lbs/in 17.0 kN/m	116 lbs/in 20.3 kN/m	137 lbs/in 24.0 kN/m
Elongation		250%	360%	380%	430%	430%	450%
Modulus at 100%		10 lbs/in 1.8 kN/m	21 lbs/in 3.7 kN/m	32 lbs/in 5.6 kN/m	40 lbs/in 7.0 kN/m	50 lbs/in 8.8 kN/m	60 lbs/in 10.5 kN/m
Tear Strength	D-1004 <sup>4</sup> Min	2.5 lbs 11 N	6 lbs 27 N	8 lbs 35 N	10 lbs 44 N	13 lbs 58 N	15 lbs 67 N
Dimensional Stability	D-1204 <sup>4</sup> Max Chg	4%	4%	3%	3%	3%	3%
Low Temperature Impact	D-1790 <sup>4</sup> Pass	-10° F -23° C	-15° F -26° C	-20° F -29° C	-20° F -29° C	-20° F -29° C	-20° F -29° C
<b>Index Properties</b>	<b>ASTM</b>	<b>PVC 10</b>	<b>PVC 20</b>	<b>PVC 30</b>	<b>PVC 40</b>	<b>PVC 50</b>	<b>PVC 60</b>
Specific Gravity	D-792 Typical	1.2 g/cc	1.2 g/cc	1.2 g/cc	1.2 g/cc	1.2 g/cc	1.2 g/cc
Water Extraction	D-1239 <sup>4</sup> Max Loss	0.15%	0.15%	0.15%	0.20%	0.20%	0.20%
Percent Loss (max)							
Average Plasticizer Molecular Weight	D-2124 <sup>4,5</sup>	400	400	400	400	400	400
Volatile Loss	D-1203 <sup>4</sup> Max Loss	1.5%	0.9%	0.7%	0.5%	0.5%	0.5%
Percent Loss (max)							
Soil Burial	G160 <sup>4</sup> Max Chg						
Break Strength		5%	5%	5%	5%	5%	5%
Elongation		20%	20%	20%	20%	20%	20%
Modulus at 100%		20%	20%	20%	20%	20%	20%
Hydrostatic Resistance	D-751 <sup>4</sup> Min	42 psi 290 kPa	68 psi 470 kPa	100 psi 690 kPa	120 psi 830 kPa	150 psi 1030 kPa	180 psi 1240 kPa
<b>Seam Strengths</b>	<b>ASTM</b>	<b>PVC 10</b>	<b>PVC 20</b>	<b>PVC 30</b>	<b>PVC 40</b>	<b>PVC 50</b>	<b>PVC 60</b>
Shear Strength <sup>3</sup>	D-882 <sup>4</sup> Min	20 lbs/in 3.47 kN/m	38.4 lbs/in 6.7 kN/m	58.4 lbs/in 10 kN/m	77.6 lbs/in 14 kN/m	96 lbs/in 17 kN/m	116 lbs/in 20kN/m
Peel Strength <sup>3</sup>	D-882 <sup>4</sup> Min	10 lbs/in 1.8 kN/m	12.5 lbs/in 2.2 kN/m	15 lbs/in 2.6 kN/m	15 lbs/in 2.6 kN/m	15 lbs/in 2.6 kN/m	15 lbs/in 2.6 kN/m

- Notes:
1. PGI 1104 replaces PGI 1103 Specification effective 1/1/04.
  2. Certified properties are tested by lot as specified in PGI 1104 Appendix A.
  3. Metric values are converted from US values and are rounded to the available significant digits.
  4. Modifications or further details of test are described in PGI 1104 Appendix B.
  5. Index properties are tested once per formulation as specified in PGI 1104 Appendix A.