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## PVC - POLY VINYL CHLORIDE

PVC is a widely used and proven solution to many containment needs. PVC requires 12 inches of clean cover for extended life.

Colorado Lining can fabricate PVC into custom sized panels. and facilitate a full installation with one of our certified installation crews. We want to work with you to make your job a success.

### Product Features:

- 20 Year Warranty
- Industrial or Fish Grade
- Flexible
- Available In Custom Sized Panels
- Cost Effective
- Quick Installation
- Easily Repaired By Owner
- Available In 20, 30, 40, 50, & 60 Mils
- Maximum 3:1 Slope for Cover Soil

### Uses & Applications:

- Golf Course Ponds
- Decorative Ponds
- Wastewater Treatment Ponds
- Landfill Caps and Cells
- Irrigation Reservoirs & Canals
- Entry Ponds
- Detention Ponds
- Stock Tanks
- Athletic Field Construction

- **Project Photo: Grasmere Lake/Washington Park Denver, CO**
- **Lake Lining**
- **777,000 SF PVC - 30 Mil**





# PVC

## Product Data Sheet

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