



HDPE SPECIFICATIONS

HDPE Smooth

GeoCHEM High Density Polyethylene is produced from virgin polyethylene resins. Geo HDPE has outstanding chemical resistance, mechanical properties, environmental stress crack resistance, dimensional stability, and thermal aging characteristics. GeoCHEM HDPE contains approximately 97.5% polymer and 2.5% carbon black, antioxidants and heat stabilizers, and contains no other additives, fillers or extenders. GeoCHEM HDPE has excellent UV resistance. GeoCHEM HDPE does not contain plasticizers which can migrate to the surface, causing premature aging. Manufactured from virgin polyethylene resins, it is designed to provide a high quality, economical geomembrane.

| Properties | Test Method | Typical Average Roll Values | | | |
|---|--|-----------------------------|----------|----------|----------|
| | | Black | Black | Black | Black |
| Color | | Black | Black | Black | Black |
| Thickness, mils – (minimum average) Lowest Individual Value -10% | ASTM D5199 | 12 | 20 | 30 | 40 |
| Density, gram/cm ³ (min.) | ASTM D1505 | .94 | .94 | .94 | .94 |
| Tensile Properties – Each Direction | ASTM | | | | |
| Tensile Strength at Break, lbs/in width (N/mm) | D6693 Type IV | 45 (8) | 76 (13) | 114 (20) | 152 (27) |
| Tensile Strength at Yield, lbs/in width (N/mm) | Dumbell, 2 ipm | 24 (4) | 40 (7) | 63 (11) | 84 (15) |
| Elongation at Break, % | G.L. 2.0 in | 700 | 700 | 700 | 700 |
| Elongation at Yield, % | G.L. 1.3 in | 12 | 12 | 12 | 12 |
| Tear Resistance, lbs. (N) | ASTM D1004 | 8 (35) | 13 (60) | 21 (93) | 28(125) |
| Puncture Resistance, lbs. (N) | ASTM D4833 | 21(93) | 36(160) | 54(240) | 72(320) |
| Carbon Black, % (minimum) | ASTM D1603 | 2 | 2 | 2 | 2 |
| Carbon Black Dispersion | ASTM D5596 | Note (1) | Note (1) | Note (1) | Note (1) |
| Oxidative Induction Time, Minutes | ASTM D 3895 200°C, O ₂ 1 atm | >100 | >100 | >100 | >100 |

Note 1: 9 of 10 views shall be category 1 or 2. No more than 1 view from category 3.

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