

TECHNICAL DATA - PE500 NATURAL/BLACK

HIGH MOLECULAR WEIGHT POLYETHYLENE

| MATERIAL PROPERTIES | STANDARD | UNIT | VALUE |
|---|-------------|----------------------|----------------------------|
| MOLECULAR WEIGHT | | g/mol | approx 0.5*10 ⁶ |
| DENSITY | ISO 1183 | kg/m ³ | 950 |
| WATER ABSORPTION (@23 °C Saturation) | ISO 62 | % | <0.01 |
| MECHANICAL | | | |
| TENSILE STRESS AT YIELD | ISO 527 | MPa | > 20 |
| ELONGATION AT BREAK | ISO 527 | % | > 450 |
| TENSILE MODULUS | ISO 527 | MPa | 800 |
| IMPACT STRENGTH (Charpy) @ 23 °C | ISO 179 | (kJ/m ²) | no break |
| NOTCHED IMPACT STRENGTH (Charpy) @ 23 °C | ISO 11542-2 | (kJ/m ²) | > 15 |
| BALL INDENTATION HARDNESS | ISO2039-1 | (N/mm ²) | 32-38 |
| SHORE HARDNESS | ISO 868 | - | 62-68 |
| COEFFICIENT OF FRICTION | - | - | approx 0.25 |
| ABRASION (SAND SLURRY) | - | % | < 400 |
| THERMAL | | | |
| MELTING POINT | ISO 3146 | °C | 135-138 |
| SOFTENING POINT | ISO 306 | °C | 80 |
| COEFFICIENT OF LINEAR THERMAL EXPANSION (23-80 °C) | ISO 11359 | K ⁻¹ | approx 2*10 ⁻⁴ |
| THERMAL CONDUCTIVITY | ISO 52612 | W/m*K | approx 0.4 |
| MAX WORK TEMP | - | °C | 80 |
| MAX BRIEF TEMP | - | °C | 90 |
| MIN TEMP | - | °C | -30 |
| ELECTRICAL | | | |
| DISSIPATION FACTOR (100HZ) | IEC 60250 | - | 2.1* 10 ⁻⁴ |
| VOLUME RESISTIVITY | IEC 60093 | Ohm*m | > 10 ¹² |
| SURFACE RESISTIVITY | IEC 60093 | Ohm | > 10 ¹² |
| DIELECTRIC STRENGTH | IEC 60243 | kV/mm | 40 |
| PHYSIOLOGICAL | | | |
| FOOD CONFORMITY TO EU DIRECTIVE 2002/72/EC | | | YES |
| FDA REG 21CFR177.1520 | | | YES |
| FDA REG 21CFR178.2010 | | | N/A |
| FDA REG 21CFR178.3297 | | | YES |

TECHNICAL DATA GIVEN ABOVE REFERS TO A 40mm THICK SHEET, THIS DATA MAY VARY SLIGHTLY DEPENDING ON MATERIAL THICKNESS.

ALL INFORMATION IS GIVEN IN GOOD FAITH AND WITHOUT WARRANTY

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