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Durez 31906 Black Phenolic is a medium impact, molding compound. It is designed for applications where additional mechanical strength is required.

Plasticities available for compression, transfer, and injection molding.

Form of Material Granular

Feeding & Preforming Fair

Storage Life One Year

PHENOLIC

| Typical Properties | | Compression | | Injection Grade | |
|--------------------|--|-------------------------|--------------------------|-------------------------|--------------------------|
| | | International Units | English Units | International Units | English Units |
| Physical | Specific Gravity (D792) | 1.43 | 1.43 | 1.43 | 1.43 |
| | Apparent Density (D1895) | 0.55 g/cc | 0.55 g/cc | 0.55 g/cc | 0.55 g/cc |
| | Molding Shrinkage* (D6289) | 0.006 m/m | 0.006 in/in | 0.0100 m/m | 0.0100 in/in |
| | Water Absorption (D570) | 0.40 % | 0.40 % | 0.40 % | 0.40 % |
| Mechanical | Tensile Strength (D638) | 55 Mpa | 8,000 psi | 59 Mpa | 8,500 psi |
| | Flexural Strength (D790) | 90 Mpa | 13,000 psi | 90 Mpa | 13,000 psi |
| | Compressive Strength (D695) | 214 Mpa | 31,000 psi | 220 Mpa | 32,000 psi |
| | Tensile Modulus (D638) | 8.3 Gpa | 1.2 x10 ⁶ psi | 7.6 Gpa | 1.1 x10 ⁶ psi |
| | Izod Impact (D256) | 34.7 J/m | 0.65 ft lb/in | 21.4 J/m | 0.40 ft lb/in |
| Thermal | Deflection Temperature (D648) | 204 °C | 400 °F | 191 °C | 375 °F |
| | UL Flammability (UL-94) @ | 1.5 mm | HB | 1.5 mm | HB |
| | <small>For complete UL Listing for this material refer to the UL web Site www.ul.com</small> | 3.0 mm | HB | 3.0 mm | HB |
| | | 6.0 mm | V - 0 | 6.0 mm | V - 0 |
| | UL Temperature Index (Elect) @ | 3.0 mm | 150 °C | | 150 °C |
| Electrical | Dielectric Strength (D149) | | | | |
| | Short Time | 12.8 MV/m | 325 V/mil | 11.8 MV/m | 300 V/mil |
| | Step by Step | 10.8 MV/m | 275 V/mil | 9.8 MV/m | 250 V/mil |
| | Dissipation Factor (D150)1 MHZ | .06 | .06 | .08 | .08 |
| | Dielectric Constant (D150)1 MHZ | 6.0 | 6.0 | 6.5 | 6.5 |
| | Volume Resistivity(ohms)(D257) | 1.0 x10 ¹⁰ m | 1.0 x10 ¹² cm | 1.0 x10 ¹⁰ m | 1.0 x10 ¹² cm |

Properties determined with test specimens molded at 340-350°F *Typical transfer-molded shrinkage is 0.007 in/in or m/m

Other Properties

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