



DUREZ

31906

Black Phenolic

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

Revision Date Jul 10, 2017

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 |
| | For complete UL Listing for this material refer to the UL web Site www.ul.com | 3.0 mm | HB | 3.0 mm | HB |
| | UL Temperature Index (Elect) @ | 6.0 mm | V - 0 | 6.0 mm | V - 0 |
| 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

RoHS2 (2011/65/EU) Compliant
REACH (EC 1907/2006) SVHC / Annex XIV Compliant
HR4173 Sec.1502 Conflict Materials Compliant
Halogen Free

Shelf life- Minimum one year at typical ambient conditions.

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Sumitomo Bakelite North America, Inc.
Corporate Office and Technical Market Development Center
46820 Magellan Drive, Suite C, Novi, MI 48377
Tel. 1-248-313-7000

www.sbhpp.com

Durez Canada Company Ltd.
100 Dunlop Street, P.O. Box 100
Fort Erie, Ontario L2A 5M6
Tel. 1-905-346-8700