



Typical Properties of

Celazole®

Unfilled Polybenzimidazole

Process: Compression Molded

| Property | Test Method | Unit | Value |
|--|----------------|------------------------------|----------------------|
| Specific Gravity | D792 | -- | 1.3 |
| Tensile Strength | D638 | psi | 20,000 |
| Tensile Modulus | D638 | psi | 850,000 |
| Elongation | D638 | % | 3 |
| Flexural Strength | D790 | psi | 32,000 |
| Flexural Modulus | D790 | psi | 950,000 |
| Compressive Strength | D695 | psi | 50,000 |
| Compressive Modulus | D695 | psi | 900,000 |
| Hardness, Rockwell | D785 | -- | E105 (M125) |
| Hardness Durometer | -- | -- | D94 |
| Izod Impact (notched) | D256 | ft. lb of notch | 0.5 |
| Coeff. of Friction (Dynamic) | -- | dry v.s steel | 0.24 |
| Coeff. of Linear Therm. Expan. | E831/ D696 | in./in./°F | 1.3×10^{-5} |
| Continuous Use Temperature | -- | °F | 600 |
| Heat Deflection Temperature | D648 | °F | 800 |
| Glass Transition Temperature | D3418 | °F | 750 |
| Melting Point | D3418 | °F | N / A |
| Thermal Conductivity | E1530-11 | BTU in/hr ft ² °F | 2.8 |
| Dielectric Strength | D149 | Volts/mil | 550 |
| Surface Resistivity | EOS/ESD 511.11 | ohm/square | $>10^{13}$ |
| Flammability | UL94 | -- | V-0 |
| Water Absorption, 24 hrs. | D570 | % by weight | 0.4 |
| Water Absorption, Saturation | D570 | % by weight | 5 |
| Limiting PV (4:1 Safety Factor) | -- | -- | 37,500 |
| K-Factor | -- | -- | 60 |
| FDA Compliance | -- | -- | No |

Note: The data provided is for reference purposes only. Additional testing may be required for design specifications or quality control.
All values at 73 F unless otherwise stated.