



**Product Data Sheet &
General Processing Conditions**

**ZOGGOV® M64G4
Polyethersulfone (PES)
Glass Fiber**

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

| PERMANENCE | English | SI Metric | ASTM TEST |
|--|----------------|------------------|------------------|
| Primary Additive | 20 % | 20 % | |
| Specific Gravity | 1.51 | 1.51 | D 792 |
| Molding Shrinkage 1/8 in (3.2 mm) section | 0.0040 in/in | 0.40 % | D 955 |
| Water Absorption, 24 hrs @ 23°C | 0.400 % | 0.400 % | D 570 |

MECHANICAL

| | | | |
|--|----------------------------|----------|--------|
| Impact Strength, Izod notched 1/8 in (3.2 mm) section | 1.4 ft-lbs/in | 75 J/m | D 256 |
| unnotched 1/8 in (3.2 mm) section | 11.0 ft-lbs/in | 587 J/m | D 4812 |
| Tensile Strength | 19000 psi | 131 MPa | D 638 |
| Tensile Elongation | 2.9 % | 2.9 % | D 638 |
| Tensile Modulus | 1.00 x 10 ⁶ psi | 6895 MPa | D 638 |
| Flexural Strength | 28000 psi | 193 MPa | D 790 |
| Flexural Modulus | 0.90 x 10 ⁶ psi | 6206 MPa | D 790 |
| Hardness Rockwell, R | 122 | 122 | D 785 |

ELECTRICAL

| | | | |
|----------------------------------|---------------|---------------|-------|
| Dielectric Strength, S/T, in oil | 375 VPM | 14.8 kV/mm | D 149 |
| Dielectric Constant, 1 MHz, Dry | 3.9 | 3.9 | D 150 |
| Dissipation Factor, 1 MHz, Dry | 0.0070 | 0.0070 | D 150 |
| Arc Resistance | 70 s | 70 s | D 495 |
| Volume Resistivity | > 1E12 ohm.cm | > 1E12 ohm.cm | D 257 |

THERMAL

| | | | |
|---|--|----------------------------|--------|
| Deflection Temperature @ 264 psi (1820 kPa) | 420 °F | 216 °C | D 648 |
| @ 66 psi (455 kPa) | 430 °F | 221 °C | D 648 |
| Ignition Resistance* Flammability** | V-0 @ 1/16 in | V-0 @ 1.5 mm | D 3801 |
| Coefficient of Linear Thermal Expansion Flow Direction | 1.9 x 10 ⁻⁵ /°F | 3.4 x 10 ⁻⁵ /°C | E 831 |
| Thermal Conductivity Through-plane | 2.10 (BTU.in)/(hr.ft ² .°F) | 0.30 W/(m.K) | E 1530 |

PROPERTY NOTES

Data herein is typical and not to be construed as specifications.

Unless otherwise specified, all data listed is for natural or black colored materials. Pigments can affect properties.

* This rating is not intended to reflect hazards of this or any other material under actual fire conditions.

** Values per MOLAN Company testing.

GENERAL PROCESSING FOR INJECTION MOLDING

| | English | SI Metric |
|--------------------|-------------------|------------------|
| Injection Pressure | 10000 - 15000 psi | 69 - 103 MPa |
| Melt Temperature | 650 - 710 °F | 343 - 377 °C |
| Mold Temperature | 275 - 350 °F | 135 - 177 °C |
| Drying | 6 hrs @ 300 °F | 6 hrs @ 149 °C |
| Moisture Content | 0.04 % | 0.04 % |
| Dew Point | -25 °F | -32 °C |

PROCESSING NOTES

Desiccant Type Dryer Required.