



## Product Data Sheet & General Processing Conditions

### ZOVGOV® M27G8FR Polyphenylene Sulfide (PPS) Glass Fiber UL94 V-0

This series of compounds offer outstanding strengths combined with good heat and chemical resistance which may successfully be maintained in low load applications operating up to 500F. These ignition resistant materials exhibit excellent strength and chemical resistance.

#### PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

| PERMANENCE                      | English               | SI Metric     | ASTM TEST |
|---------------------------------|-----------------------|---------------|-----------|
| Primary Additive                | 40 %                  | 40 %          |           |
| Specific Gravity                | 1.68                  | 1.68          | D 792     |
| Molding Shrinkage               |                       |               |           |
| 1/8 in (3.2 mm) section         | 0.0010 - 0.0020 in/in | 0.10 - 0.20 % | D 955     |
| Water Absorption, 24 hrs @ 23°C | 0.020 %               | 0.020 %       | D 570     |

#### MECHANICAL

|                                   |                            |           |        |
|-----------------------------------|----------------------------|-----------|--------|
| Impact Strength, Izod             |                            |           |        |
| notched 1/8 in (3.2 mm) section   | 1.7 ft-lbs/in              | 91 J/m    | D 256  |
| unnotched 1/8 in (3.2 mm) section | 9.0 ft-lbs/in              | 481 J/m   | D 4812 |
| Tensile Strength                  | 23500 psi                  | 162 MPa   | D 638  |
| Tensile Elongation                | 1.5 %                      | 1.5 %     | D 638  |
| Tensile Modulus                   | 2.40 x 10 <sup>6</sup> psi | 16548 MPa | D 638  |
| Flexural Strength                 | 33000 psi                  | 228 MPa   | D 790  |
| Flexural Modulus                  | 2.20 x 10 <sup>6</sup> psi | 15169 MPa | D 790  |
| Hardness                          |                            |           |        |
| Rockwell, R                       | 123                        | 123       | D 785  |

#### ELECTRICAL

|                                  |               |               |       |
|----------------------------------|---------------|---------------|-------|
| Dielectric Strength, S/T, in oil | 350 VPM       | 13.8 kV/mm    | D 149 |
| Dielectric Constant, 1 MHz, Dry  | 3.8           | 3.8           | D 150 |
| Dissipation Factor, 1 MHz, Dry   | 0.0020        | 0.0020        | D 150 |
| Arc Resistance                   | 120 s         | 120 s         | D 495 |
| Volume Resistivity               | > 1E16 ohm.cm | > 1E16 ohm.cm | D 257 |

#### THERMAL

|                        |               |              |       |
|------------------------|---------------|--------------|-------|
| Deflection Temperature |               |              |       |
| @ 264 psi (1820 kPa)   | 510 °F        | 266 °C       | D 648 |
| Ignition Resistance*   |               |              |       |
| Flammability           | V-0 @ 1/32 in | V-0 @ 0.8 mm | UL94  |

#### 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.

#### GENERAL PROCESSING FOR INJECTION MOLDING

|                    | English           | SI Metric      |
|--------------------|-------------------|----------------|
| Injection Pressure | 10000 - 15000 psi | 69 - 103 MPa   |
| Melt Temperature   | 585 - 625 °F      | 307 - 329 °C   |
| Mold Temperature   | 275 - 350 °F      | 135 - 177 °C   |
| Drying             | 6 hrs @ 300 °F    | 6 hrs @ 149 °C |
| Moisture Content   | 0.04 %            | 0.04 %         |

#### PROCESSING NOTES