



**Product Data Sheet &  
General Processing Conditions**

**ZOVGOV® ELC M21C  
Polycarbonate (PC)  
Carbon Fiber  
ESD Protection  
Electrically Conductive**

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

| <b>PERMANENCE</b>                            | <b>English</b>        | <b>SI Metric</b> | <b>ASTM TEST</b> |
|--|-----------------------|------------------|------------------|
| Specific Gravity                             | 1.25                  | 1.25             | D 792            |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0010 - 0.0020 in/in | 0.10 - 0.20 %    | D 955            |

**MECHANICAL**

|  |                            |             |        |
|--|----------------------------|-------------|--------|
| Impact Strength, Izod<br>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                        | 10.0 ft-lbs/in             | 534 J/m     | D 4812 |
| Tensile Strength   | 17500 psi                  | 121 MPa     | D 638  |
| Tensile Elongation                                       | 2.0 - 3.0 %                | 2.0 - 3.0 % | D 638  |
| Tensile Modulus  | 1.20 x 10 <sup>6</sup> psi | 8274 MPa    | D 638  |
| Flexural Strength  | 25000 psi                  | 172 MPa     | D 790  |
| Flexural Modulus   | 1.10 x 10 <sup>6</sup> psi | 7584 MPa    | D 790  |

**ELECTRICAL**

|   |              |              |                    |
|---|--------------|--------------|--------------------|
| Volume Resistivity                                  | < 1E3 ohm.cm | < 1E3 ohm.cm | D 257              |
| Surface Resistivity                                 | < 1E6 ohm/sq | < 1E6 ohm/sq | D 257              |
| Surface Resistance                                  | < 1E5 ohm    | < 1E5 ohm    | ESD STM11.11       |
| Static Decay<br>MIL-PRF-81705D, 5kV to 50 V, 12% RH | < 2.00 s     | < 2.00 s     | FTMS101C<br>4046.1 |

**THERMAL**

|  |        |        |       |
|--|--------|--------|-------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | 290 °F | 143 °C | D 648 |
|--|--------|--------|-------|

**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.

**GENERAL PROCESSING FOR INJECTION MOLDING**

|                    | <b>English</b>    | <b>SI Metric</b> |
|--------------------|-------------------|------------------|
| Injection Pressure | 10000 - 15000 psi | 69 - 103 MPa     |
| Melt Temperature   | 550 - 600 °F      | 288 - 316 °C     |
| Mold Temperature   | 180 - 250 °F      | 82 - 121 °C      |
| Drying             | 4 hrs @ 250 °F    | 4 hrs @ 121 °C   |
| Moisture Content   | 0.02 %            | 0.02 %           |
| Dew Point          | -20 °F            | -29 °C           |

**PROCESSING NOTES**

Desiccant Type Dryer Required.