



**Product Data Sheet &  
General Processing Conditions**

**PermaStat® 301  
Polycarbonate (PC)  
ESD Protection  
Permanently Anti-static  
Glass Fiber**

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

| PERMANENCE                                   | English               | SI Metric     | ASTM TEST |
|----------------------------------------------|-----------------------|---------------|-----------|
| Primary Additive                             | 10 %                  | 10 %          |           |
| Specific Gravity                             | 1.25                  | 1.25          | D 792     |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0030 - 0.0050 in/in | 0.30 - 0.50 % | D 955     |

**MECHANICAL**

|                                                          |                            |              |        |
|----------------------------------------------------------|----------------------------|--------------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 2.5 ft-lbs/in              | 133 J/m      | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 20.0 ft-lbs/in             | 1068 J/m     | D 4812 |
| Tensile Strength                                         | 7000 psi                   | 48 MPa       | D 638  |
| Tensile Elongation                                       | 7.0 - 10.0 %               | 7.0 - 10.0 % | D 638  |
| Tensile Modulus                                          | 0.40 x 10 <sup>6</sup> psi | 2758 MPa     | D 638  |
| Flexural Strength                                        | 12000 psi                  | 83 MPa       | D 790  |
| Flexural Modulus                                         | 0.37 x 10 <sup>6</sup> psi | 2551 MPa     | D 790  |

**ELECTRICAL**

|                                                     |                        |                        |                    |
|-----------------------------------------------------|------------------------|------------------------|--------------------|
| Volume Resistivity                                  | 1E+09 - 9.9E+10 ohm.cm | 1E+09 - 9.9E+10 ohm.cm | D 257              |
| Surface Resistivity                                 | 1E+10 - 9.9E+11 ohm/sq | 1E+10 - 9.9E+11 ohm/sq | D 257              |
| Surface Resistance                                  | 1E+09 - 9.9E+10 ohm    | 1E+09 - 9.9E+10 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 |

**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**

|                    | English          | SI Metric      |
|--------------------|------------------|----------------|
| Injection Pressure | 6000 - 10000 psi | 41 - 69 MPa    |
| Melt Temperature   | 430 - 470 °F     | 221 - 243 °C   |
| Mold Temperature   | 150 - 250 °F     | 66 - 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**

Do not exceed 520 °F (270 °C) melt temperature.  
Desiccant Type Dryer Required.