



**Product Data Sheet &  
General Processing Conditions**

**EMI 2160.5  
Polyetherimide (PEI)  
Stainless Steel Fiber  
Electrically Conductive  
EMI/RFI/ESD Protection**

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

| <b>PERMANENCE</b>                            | <b>English</b>        | <b>SI Metric</b> | <b>ASTM TEST</b> |
|--|-----------------------|------------------|------------------|
| Primary Additive                             | 5 %                   | 5 %              |                  |
| Specific Gravity                             | 1.33                  | 1.33             | D 792            |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0060 - 0.0080 in/in | 0.60 - 0.80 %    | D 955            |

**MECHANICAL**

|  |                            |              |        |
|--|----------------------------|--------------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 1.0 ft-lbs/in              | 53 J/m       | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 10.0 ft-lbs/in             | 534 J/m      | D 4812 |
| Tensile Strength   | 14000 psi                  | 97 MPa       | D 638  |
| Tensile Elongation                                       | 8.0 - 12.0 %               | 8.0 - 12.0 % | D 638  |
| Tensile Modulus  | 0.52 x 10 <sup>6</sup> psi | 3585 MPa     | D 638  |
| Flexural Strength  | 20000 psi                  | 138 MPa      | D 790  |
| Flexural Modulus   | 0.50 x 10 <sup>6</sup> psi | 3448 MPa     | D 790  |

**ELECTRICAL**

|   |              |              |                    |
|---|--------------|--------------|--------------------|
| Volume Resistivity                                  | < 1E2 ohm.cm | < 1E2 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 |

**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 | 12000 - 18000 psi | 83 - 124 MPa     |
| Melt Temperature   | 670 - 750 °F      | 354 - 399 °C     |
| Mold Temperature   | 275 - 350 °F      | 135 - 177 °C     |
| Drying             | 4 hrs @ 300 °F    | 4 hrs @ 149 °C   |
| Moisture Content   | 0.04 %            | 0.04 %           |
| Dew Point          | -20 °F            | -29 °C           |

**PROCESSING NOTES**

Use a reverse barrel profile. Remove hopper magnets. Allow 4 - 5 shots to properly disperse the conductive fibers. The surface finish should have a silver streaking appearance, not clumps.  
Desiccant Type Dryer Required.

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This information is intended to be used only as a guideline for designers and processors of modified thermoplastics. Because design and processing is complex, a set solution will not solve all problems. Observation on a "trial and error" basis may be required to achieve desired results.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

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