



Product Data Sheet & General Processing Conditions

RTP 1382 HEC Polyphenylene Sulfide (PPS) Nickel-Coated Carbon Fiber Electrically Conductive EMI/RFI/ESD Protection

PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS

| PERMANENCE | English | SI Metric | ASTM TEST |
|--|-----------------------|---------------|-----------|
| Primary Additive | 15 % | 15 % | |
| Specific Gravity | 1.46 | 1.46 | D 792 |
| Molding Shrinkage 1/8 in (3.2 mm) section | 0.0015 - 0.0030 in/in | 0.15 - 0.30 % | D 955 |

MECHANICAL

| | | | |
|--|----------------------------|-------------|--------|
| Impact Strength, Izod notched 1/8 in (3.2 mm) section | 0.8 ft-lbs/in | 40 J/m | D 256 |
| unnotched 1/8 in (3.2 mm) section | 3.0 ft-lbs/in | 160 J/m | D 4812 |
| Tensile Strength | 17500 psi | 121 MPa | D 638 |
| Tensile Elongation | 1.0 - 2.0 % | 1.0 - 2.0 % | D 638 |
| Tensile Modulus | 1.60 x 10 ⁶ psi | 11032 MPa | D 638 |
| Flexural Strength | 25000 psi | 172 MPa | D 790 |
| Flexural Modulus | 1.50 x 10 ⁶ psi | 10342 MPa | D 790 |

ELECTRICAL

| | | | |
|---|--------------|--------------|--------------------|
| Volume Resistivity | < 1.0 ohm.cm | < 1.0 ohm.cm | D 257 |
| Surface Resistivity | < 1E5 ohm/sq | < 1E5 ohm/sq | D 257 |
| Surface Resistance | < 1E4 ohm | < 1E4 ohm | ESD STM11.11 |
| Static Decay MIL-PRF-81705D, 5kV to 50 V, 12% RH | < 2.00 s | < 2.00 s | FTMS101C 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 | 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

Remove hopper magnets.

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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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