

(+) 18816996168

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**Product Data Sheet &  
General Processing Conditions**

**RTP 799 X 116773  
High Density Polyethylene (HDPE)  
Electrically Conductive  
Thermally Conductive**

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

| <b>PERMANENCE</b>                            | <b>English</b> | <b>SI Metric</b> | <b>ASTM<br/>TEST</b> |
|----------------------------------------------|----------------|------------------|----------------------|
| Specific Gravity                             | 1.49           | 1.49             | D 792                |
| Melt Flow Rate<br>@ 190 °C, / 2.16 kg        | 0.30 g/10 min  | 0.30 g/10 min    | D 1238               |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0065 in/in   | 0.65 %           | D 955                |

**MECHANICAL**

|                                                          |                            |          |        |
|----------------------------------------------------------|----------------------------|----------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 0.5 ft-lbs/in              | 27 J/m   | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 1.9 ft-lbs/in              | 101 J/m  | D 4812 |
| Tensile Strength                                         | 4100 psi                   | 28 MPa   | D 638  |
| Tensile Elongation                                       | 1.6 %                      | 1.6 %    | D 638  |
| Tensile Modulus                                          | 0.90 x 10 <sup>6</sup> psi | 6206 MPa | D 638  |
| Flexural Strength                                        | 6600 psi                   | 46 MPa   | D 790  |
| Flexural Modulus                                         | 0.80 x 10 <sup>6</sup> psi | 5516 MPa | D 790  |

**ELECTRICAL**

|                                                     |                   |                   |                    |
|-----------------------------------------------------|-------------------|-------------------|--------------------|
| Volume Resistivity                                  | 1E-1 - 1E2 ohm.cm | 1E-1 - 1E2 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<br>MIL-PRF-81705D, 5kV to 50 V, 12% RH | < 2.00 s          | < 2.00 s          | FTMS101C<br>4046.1 |

**THERMAL**

|                                       |                                         |              |        |
|---------------------------------------|-----------------------------------------|--------------|--------|
| Thermal Conductivity<br>Through-plane | 15.28 (BTU.in)/(hr.ft <sup>2</sup> .°F) | 2.20 W/(m.K) | E 1530 |
|---------------------------------------|-----------------------------------------|--------------|--------|

**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   | 380 - 450 °F      | 193 - 232 °C     |
| Mold Temperature   | 70 - 150 °F       | 21 - 66 °C       |
| Drying             | 2 hrs @ 175 °F    | 2 hrs @ 79 °C    |