

# RTP 1185

Polyethylene Terephthalate

RTP Company

Message:

Warning: The status of this material is 'Commercial: Limited Issue'  
The data for this material has not been recently verified.  
Please contact RTP Company for current information prior to specifying this grade.  
-Preliminary Product Data per RTP Co.-

| General Information                                     |                                                        |                   |             |
|---------------------------------------------------------|--------------------------------------------------------|-------------------|-------------|
| Filler / Reinforcement                                  | Carbon fiber reinforced material, 30% filler by weight |                   |             |
| Features                                                | Conductivity                                           |                   |             |
| RoHS Compliance                                         | Contact manufacturer                                   |                   |             |
| Appearance                                              | Black                                                  |                   |             |
|                                                         | Natural color                                          |                   |             |
| Forms                                                   | Particle                                               |                   |             |
| Processing Method                                       | Injection molding                                      |                   |             |
| Physical                                                | Nominal Value                                          | Unit              | Test Method |
| Specific Gravity                                        | 1.42                                                   | g/cm <sup>3</sup> | ASTM D792   |
| Molding Shrinkage - Flow (3.18 mm)                      | 0.10                                                   | %                 | ASTM D955   |
| Hardness                                                | Nominal Value                                          | Unit              | Test Method |
| Rockwell Hardness (R-Scale)                             | 120                                                    |                   | ASTM D785   |
| Mechanical                                              | Nominal Value                                          | Unit              | Test Method |
| Tensile Modulus                                         | 24100                                                  | MPa               | ASTM D638   |
| Tensile Strength                                        | 172                                                    | MPa               | ASTM D638   |
| Tensile Elongation (Break)                              | 1.5                                                    | %                 | ASTM D638   |
| Flexural Modulus                                        | 22000                                                  | MPa               | ASTM D790   |
| Flexural Strength                                       | 276                                                    | MPa               | ASTM D790   |
| Impact                                                  | Nominal Value                                          | Unit              | Test Method |
| Notched Izod Impact (6.35 mm)                           | 80                                                     | J/m               | ASTM D256   |
| Unnotched Izod Impact (6.35 mm)                         | 640                                                    | J/m               | ASTM D4812  |
| Thermal                                                 | Nominal Value                                          | Unit              | Test Method |
| Deflection Temperature Under Load                       |                                                        |                   | ASTM D648   |
| 0.45 MPa, not annealed                                  | 221                                                    | °C                | ASTM D648   |
| 1.8 MPa, not annealed                                   | 216                                                    | °C                | ASTM D648   |
| Electrical                                              | Nominal Value                                          | Unit              | Test Method |
| Volume Resistivity                                      | 1.0                                                    | ohms · cm         | ASTM D257   |
| Flammability                                            | Nominal Value                                          | Unit              | Test Method |
| Flame Rating (1.59 mm, Values per RTP Company testing.) | HB                                                     |                   | UL 94       |

#### Additional Information

Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in.: 2mil/in.

| Injection             | Nominal Value | Unit               |
|-----------------------|---------------|--------------------|
| Suggested Max Regrind | 20            | %                  |
| Rear Temperature      | 260 - 299     | °C                 |
| Middle Temperature    | 260 - 299     | °C                 |
| Front Temperature     | 260 - 299     | °C                 |
| Mold Temperature      | 82.0 - 121    | °C                 |
| Injection Pressure    | 68.9 - 103    | MPa                |
| Back Pressure         | 0.172 - 0.517 | MPa                |
| Clamp Tonnage         | 6.9 - 11      | kN/cm <sup>2</sup> |

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#### Recommended distributors for this material

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