# RTP 106

### Polypropylene Homopolymer

**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.

This material offers an excellent balance of rigidity, strength, and dimensional stability combined with good heat and chemical resistance, as compared to the base resin. This material displays an outstanding cost to performance ratio.

| Additive<br>Features<br>RoHS Compliance<br>Appearance | Glass fiber reinforced material, 35% f<br>heat stabilizer<br>Thermal Stability<br>Contact manufacturer<br>Black<br>Natural color | filler by weight |             |
|---|--|------------------|-------------|
| Features<br>RoHS Compliance<br>Appearance             | Thermal Stability<br>Contact manufacturer<br>Black   |                  |             |
| RoHS Compliance<br>Appearance                         | Contact manufacturer<br>Black  |                  |             |
| Appearance  | Black  |                  |             |
|   |  |                  |             |
|   | Natural color  |                  |             |
|   |  |                  |             |
|   |  |                  |             |
| Forms   | Particle   |                  |             |
| Processing Method                                     | Injection molding  |                  |             |
| Physical N  | Nominal Value  | Unit             | Test Method |
| Specific Gravity 1                                    | 1.16   | g/cm³            | ASTM D792   |
| Molding Shrinkage - Flow (3.18 mm) 0                  | ).40   | %                | ASTM D955   |
| Water Absorption (23°C, 24 hr) 0                      | ).050  | %                | ASTM D570   |
| Hardness  | Nominal Value  | Unit             | Test Method |
| Rockwell Hardness (R-Scale) 9                         | 98   |                  | ASTM D785   |
| Mechanical  | Nominal Value  | Unit             | Test Method |
| Tensile Modulus 8                                     | 3960   | MPa              | ASTM D638   |
| Tensile Strength 5                                    | 57.0   | MPa              | ASTM D638   |
| Tensile Elongation (Break) 1                          | 1.8  | %                | ASTM D638   |
| Flexural Modulus 6                                    | 5200   | MPa              | ASTM D790   |
| Flexural Strength 9                                   | 90.0   | MPa              | ASTM D790   |
| Compressive Strength 6                                | 50.0   | MPa              | ASTM D695   |
| Impact N  | Nominal Value  | Unit             | Test Method |
| Notched Izod Impact (3.18 mm) 5                       | 59   | J/m              | ASTM D256   |
| Unnotched Izod Impact (3.18 mm) 2                     | 210  | J/m              | ASTM D4812  |
| Thermal N   | Nominal Value  | Unit             | Test Method |
| Deflection Temperature Under Load                     |  |                  | ASTM D648   |
| 0.45 MPa, not annealed 1                              | 63   | °C               | ASTM D648   |
| 1.8 MPa, not annealed 1                               | 49   | °C               | ASTM D648   |
| CLTE - Flow 3   | 3.6E-5   | cm/cm/°C         | ASTM D696   |

| Thermal Conductivity                                       | 0.40          | W/m/K   | ASTM C177   |  |
|--|---------------|---------|-------------|--|
| Electrical   | Nominal Value | Unit    | Test Method |  |
| Volume Resistivity   | 1.0E+16       | ohms·cm | ASTM D257   |  |
| Dielectric Strength  | 20            | kV/mm   | ASTM D149   |  |
| Dielectric Constant (1 MHz)                                | 3.00          |         | ASTM D150   |  |
| Dissipation Factor (1 MHz)                                 | 1.0E-3        |         | ASTM D150   |  |
| Arc Resistance   | 110           | sec     | ASTM D495   |  |
| Flammability   | Nominal Value | Unit    | Test Method |  |
| Flame Rating (1.59 mm, Values per RTP<br>Company testing.) | НВ            |         | UL 94       |  |
| Additional Information                                     |               |         |             |  |
| Mold Shrinkage, ASTM D-955, 0.25in.: 4mil/in.              |               |         |             |  |
| Injection  | Nominal Value | Unit    |             |  |
| Drying Temperature   | 82.2          | °C      |             |  |
| Drying Time  | 2.0           | hr      |             |  |
| Suggested Max Regrind                                      | 20            | %       |             |  |
| Rear Temperature   | 218 - 274     | °C      |             |  |
| Middle Temperature   | 218 - 274     | °C      |             |  |
| Front Temperature  | 218 - 274     | °C      |             |  |
| Mold Temperature   | 32.2 - 65.6   | °C      |             |  |
| Injection Pressure   | 68.9 - 138    | MPa     |             |  |
|  |               |         |             |  |

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#### Recommended distributors for this material

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