

# RTP 1203-80D

Thermoplastic Polyurethane Elastomer (Polyester)

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.

| General Information               |                                  |                   |             |
|-----------------------------------|----------------------------------|-------------------|-------------|
| Filler / Reinforcement            | Glass Fiber,20% Filler by Weight |                   |             |
| Features                          | Good Abrasion Resistance         |                   |             |
|                                   | Good Chemical Resistance         |                   |             |
|                                   | Low Temperature Toughness        |                   |             |
| RoHS Compliance                   | Contact Manufacturer             |                   |             |
| Appearance                        | Black                            |                   |             |
|                                   | Natural Color                    |                   |             |
| Forms                             | Pellets                          |                   |             |
| Processing Method                 | Injection Molding                |                   |             |
| Physical                          | Nominal Value                    | Unit              | Test Method |
| Specific Gravity                  | 1.37                             | g/cm <sup>3</sup> | ASTM D792   |
| Molding Shrinkage - Flow          | 0.40                             | %                 | ASTM D955   |
| Water Absorption (23°C, 24 hr)    | 0.15                             | %                 | ASTM D570   |
| Hardness                          | Nominal Value                    | Unit              | Test Method |
| Rockwell Hardness (R-Scale)       | 115                              |                   | ASTM D785   |
| Durometer Hardness (Shore D)      | 85                               |                   | ASTM D2240  |
| Mechanical                        | Nominal Value                    | Unit              | Test Method |
| Tensile Modulus                   | 5520                             | MPa               | ASTM D638   |
| Tensile Strength (Yield)          | 96.5                             | MPa               | ASTM D638   |
| Tensile Elongation (Break)        | 3.3                              | %                 | ASTM D638   |
| Flexural Modulus                  | 4270                             | MPa               | ASTM D790   |
| Flexural Strength (Yield)         | 131                              | MPa               | ASTM D790   |
| Compressive Strength              | 68.9                             | MPa               | ASTM D695   |
| Impact                            | Nominal Value                    | Unit              | Test Method |
| Notched Izod Impact (3.18 mm)     | 80                               | J/m               | ASTM D256   |
| Unnotched Izod Impact (3.18 mm)   | 530                              | J/m               | ASTM D4812  |
| Thermal                           | Nominal Value                    | Unit              | Test Method |
| Deflection Temperature Under Load |                                  |                   | ASTM D648   |
| 0.45 MPa, Unannealed              | 127                              | °C                |             |
| 1.8 MPa, Unannealed               | 76.7                             | °C                |             |

|                             |                      |             |                    |
|-----------------------------|----------------------|-------------|--------------------|
| CLTE - Flow                 | 7.2E-5               | cm/cm/°C    | ASTM D696          |
| Thermal Conductivity        | 0.36                 | W/m/K       | ASTM C177          |
| <b>Electrical</b>           | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Volume Resistivity          | 1.0E+11              | ohms·cm     | ASTM D257          |
| Dielectric Strength         | 18                   | kV/mm       | ASTM D149          |
| Dielectric Constant (1 MHz) | 4.80                 |             | ASTM D150          |
| Dissipation Factor (1 MHz)  | 0.012                |             | ASTM D150          |
| Arc Resistance              | 90.0                 | sec         | ASTM D495          |
| <b>Flammability</b>         | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Flame Rating                | HB                   |             | UL 94              |
| <b>Injection</b>            | <b>Nominal Value</b> | <b>Unit</b> |                    |
| Rear Temperature            | 182 to 199           | °C          |                    |
| Middle Temperature          | 188 to 204           | °C          |                    |
| Front Temperature           | 193 to 210           | °C          |                    |
| Mold Temperature            | 15.6 to 65.6         | °C          |                    |
| Injection Pressure          | 68.9 to 103          | MPa         |                    |

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#### Recommended distributors for this material

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