

# RTP 4005 FR A

Polyphthalamide

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.  
Glass Fiber 30% - Flame Retardant

| General Information                                                                                  |                                                       |                   |             |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------|-------------|
| Filler / Reinforcement                                                                               | Glass fiber reinforced material, 30% filler by weight |                   |             |
| Additive                                                                                             | heat stabilizer                                       |                   |             |
| Features                                                                                             | Thermal Stability                                     |                   |             |
|                                                                                                      | Flame retardancy                                      |                   |             |
| RoHS Compliance                                                                                      | Contact manufacturer                                  |                   |             |
| Forms                                                                                                | Particle                                              |                   |             |
| Processing Method                                                                                    | Injection molding                                     |                   |             |
| Physical                                                                                             | Nominal Value                                         | Unit              | Test Method |
| Specific Gravity                                                                                     | 1.70                                                  | g/cm <sup>3</sup> | ASTM D792   |
| Molding Shrinkage - Flow (3.18 mm)                                                                   | 0.15 - 0.30                                           | %                 | ASTM D955   |
| Water Absorption (23°C, 24 hr)                                                                       | 0.15                                                  | %                 | ASTM D570   |
| Mechanical                                                                                           | Nominal Value                                         | Unit              | Test Method |
| Tensile Modulus                                                                                      | 13100                                                 | MPa               | ASTM D638   |
| Tensile Strength                                                                                     | 145                                                   | MPa               | ASTM D638   |
| Tensile Elongation (Break)                                                                           | 1.5                                                   | %                 | ASTM D638   |
| Flexural Modulus                                                                                     | 12800                                                 | MPa               | ASTM D790   |
| Flexural Strength                                                                                    | 200                                                   | MPa               | ASTM D790   |
| Impact                                                                                               | Nominal Value                                         | Unit              | Test Method |
| Notched Izod Impact (3.18 mm)                                                                        | 85                                                    | J/m               | ASTM D256   |
| Unnotched Izod Impact (18300 mm)                                                                     | 640                                                   | J/m               | ASTM D4812  |
| Thermal                                                                                              | Nominal Value                                         | Unit              | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed)                                              | 260                                                   | °C                | ASTM D648   |
| Electrical                                                                                           | Nominal Value                                         | Unit              | Test Method |
| Volume Resistivity                                                                                   | 1.0E+15                                               | ohms · cm         | ASTM D257   |
| Flammability                                                                                         | Nominal Value                                         | Unit              | Test Method |
| Flame Rating (0.800 mm)                                                                              | V-0                                                   |                   | UL 94       |
| Additional Information                                                                               |                                                       |                   |             |
| Dew Point: -25°F Tensile Elongation, ASTM D638: 1 to 2% Volume Resistivity, ASTM D257: > 1E15 ohm-cm |                                                       |                   |             |
| Injection                                                                                            | Nominal Value                                         | Unit              |             |

|                        |            |     |
|------------------------|------------|-----|
| Drying Temperature     | 79.4       | °C  |
| Drying Time            | 6.0        | hr  |
| Suggested Max Moisture | 0.050      | %   |
| Processing (Melt) Temp | 302 - 329  | °C  |
| Mold Temperature       | 135 - 163  | °C  |
| Injection Pressure     | 68.9 - 124 | MPa |

#### Injection instructions

Desiccant Type Dryer Required.

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

