# RTP 1387 TFE 13 SI 2

Polyphenylene Sulfide

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 | Carbon fiber reinforced material, 40% filler by weight | | |
| Additive | PTFE lubricant (13%)<br>Silicone lubricant (2%) | | |
| Features | Good chemical resistance<br>Good wear resistance<br>Heat resistance, medium<br>Lubrication<br>Flame retardancy | | |
| RoHS Compliance | Contact manufacturer | | |
| Appearance | Unspecified Color<br>Black | | |
| Forms | Particle | | |
| Processing Method | Injection molding | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Specific Gravity | 1.54 | g/cm³ | ASTM D792 |
| Molding Shrinkage - Flow (3.18 mm) | 0.080 | % | ASTM D955 |
| Water Absorption (23°C, 24 hr) | 0.020 | % | ASTM D570 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness (R-Scale) | 123 | | ASTM D785 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 32400 | MPa | ASTM D638 |
| Tensile Strength | 138 | MPa | ASTM D638 |
| Tensile Elongation (Break) | 0.50 | % | ASTM D638 |
| Flexural Modulus | 22800 | MPa | ASTM D790 |
| Flexural Strength | 221 | MPa | ASTM D790 |
| Compressive Strength | 172 | MPa | ASTM D695 |
| Coefficient of Friction (With Metal-Dynamic) | 0.19 | | ASTM D1894 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |

| | | | |
|---|---|---|---|
| Notched Izod Impact (3.18 mm) | 53 | J/m | ASTM D256 |
| Unnotched Izod Impact (3.18 mm) | 210 | J/m | ASTM D4812 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, not annealed | 260 | °C | ASTM D648 |
| 1.8 MPa, not annealed | 260 | °C | ASTM D648 |
| CLTE - Flow | 1.4E-5 | cm/cm/°C | ASTM D696 |
| Thermal Conductivity | 0.48 | W/m/K | ASTM C177 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Volume Resistivity | 30 | ohms·cm | ASTM D257 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | V-0 | | UL 94 |

**Additional Information**

Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in.: 1mil/in.Wear Factor, K, ASTM D-3702: 85E-10in³/min/ft/lb/hrCoefficient of Friction, Dynamic, ASTM D-3702: 0.19The wear factor and coefficient of friction were both tested on a Falex Model No.6 Wear Testing Machine at 50 FPM, 2000 PV, against C1018 steel of hardness 15-25 Rockwell C, 14-17 micro smoothness.

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature | 149 | °C |
| Drying Time | 6.0 | hr |
| Suggested Max Moisture | 0.040 | % |
| Suggested Max Regrind | 20 | % |
| Rear Temperature | 302 - 343 | °C |
| Middle Temperature | 302 - 343 | °C |
| Front Temperature | 302 - 343 | °C |
| Mold Temperature | 65.6 - 177 | °C |
| Injection Pressure | 103 - 138 | MPa |
| Clamp Tonnage | 6.9 - 11 | kN/cm² |



## Recommended distributors for this material

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