

Solvay Specialty Polymers Ryton® R-4-02 Polyphenylene Sulfide (PPS), 40% Glass Fiber

Category : Polymer , Thermoplastic , Polyphenylene Sulfide (PPS) , Polyphenylene Sulfide (PPS) with 40% Glass Fiber Filler

Material Notes:

Ryton® R-4 and R-4-02 40% glass fiber reinforced polyphenylene sulfide compounds provide a good combination of mechanical and electrical properties with outstanding chemical resistance, even at elevated temperatures. Features: Good Chemical Resistance; Good Electrical Properties Automotive Specifications FORD ESF-M4D388-A3 Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Ryton-R-4-02-Polyphenylene-Sulfide-PPS-40-Glass-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.69 g/cc	0.0611 lb/in ³	ASTM D792
Filler Content	40 %	40 %	Glass Fiber
Water Absorption	0.020 % @Time 86400 sec	0.020 % @Time 24.0 hour	ISO 62
Linear Mold Shrinkage, Flow	0.0020 cm/cm @Thickness 3.18 mm	0.0020 in/in @Thickness 0.125 in	
Linear Mold Shrinkage, Transverse	0.0050 cm/cm @Thickness 3.20 mm	0.0050 in/in @Thickness 0.126 in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	104	104	ASTM D785
Hardness, Rockwell R	122	122	ASTM D785
Tensile Strength	152 MPa	22000 psi	ASTM D638
Tensile Stress	140 MPa	20300 psi	ISO 527-2
Elongation at Break	1.0 %	1.0 %	ISO 527-2
	1.1 %	1.1 %	ASTM D638
Flexural Strength	200 MPa	29000 psi	ISO 178
	207 MPa	30000 psi	ASTM D790
Flexural Modulus	14.0 GPa	2030 ksi	ISO 178
	14.5 GPa	2100 ksi	ASTM D790
Compressive Strength	270 MPa	39200 psi	ASTM D695

Mechanical Properties	Metric	English	Comments
Izod Impact, Notched	0.800 J/cm @Thickness 3.18 mm	1.50 ft-lb/in @Thickness 0.125 in	ASTM D256
Izod Impact, Unnotched	3.50 J/cm @Thickness 3.18 mm	6.56 ft-lb/in @Thickness 0.125 in	ASTM D256
Izod Impact, Notched (ISO)	8.00 kJ/mÂ²	3.81 ft-lb/inÂ²	Notch A; ISO 180
Izod Impact, Unnotched (ISO)	20.0 kJ/mÂ²	9.52 ft-lb/inÂ²	ISO 180

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	15.0 Âµm/m-Â°C @Temperature 100 - 200 Â°C	8.33 Âµin/in-Â°F @Temperature 212 - 392 Â°F	2
	20.0 Âµm/m-Â°C @Temperature -50.0 - 50.0 Â°C	11.1 Âµin/in-Â°F @Temperature -58.0 - 122 Â°F	2
CTE, linear, Transverse to Flow	40.0 Âµm/m-Â°C @Temperature -50.0 - 50.0 Â°C	22.2 Âµin/in-Â°F @Temperature -58.0 - 122 Â°F	TMA; ASTM E831
	80.0 Âµm/m-Â°C @Temperature 100 - 200 Â°C	44.4 Âµin/in-Â°F @Temperature 212 - 392 Â°F	TMA; ASTM E831
Thermal Conductivity	0.320 W/m-K	2.22 BTU-in/hr-ftÂ²-Â°F	ASTM C177
Maximum Service Temperature, Air	200 - 220 Â°C	392 - 428 Â°F	UL Temperature Rating
Deflection Temperature at 1.8 MPa (264 psi)	265 Â°C	509 Â°F	Unannealed; ASTM D648
Flammability, UL94	V-0 @Thickness 1.60 mm	V-0 @Thickness 0.0630 in	
	5VA @Thickness 1.60 mm	5VA @Thickness 0.0630 in	
Oxygen Index	47 %	47 %	ASTM D2863

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	ASTM D257

Surface Resistance Electrical Properties	1.00e+16 ohm Metric	1.00e+16 ohm English	ASTM D257 Comments
Insulation Resistance	1.00e+11 ohm @Temperature 90.0 Â°C	1.00e+11 ohm @Temperature 194 Â°F	IEC 60167
Dielectric Constant	3.8 @Frequency 1.00e+6 Hz	3.8 @Frequency 1.00e+6 Hz	ASTM D150
	3.9 @Frequency 1000 Hz	3.9 @Frequency 1000 Hz	ASTM D150
Dielectric Strength	20.0 kV/mm	508 kV/in	ASTM D149
Dissipation Factor	0.0020 @Frequency 1000 Hz	0.0020 @Frequency 1000 Hz	ASTM D150
	0.0020 @Frequency 1.00e+6 Hz	0.0020 @Frequency 1.00e+6 Hz	ASTM D150
Arc Resistance	125 sec	125 sec	ASTM D495
Comparative Tracking Index	130 V	130 V	UL 746

Descriptive Properties	Value	Comments
Availability	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Black	
Form	Pellets	
Processing Technique	Injection Molding	
RoHS Compliance	RoHS Compliant	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China