

Solvay Specialty Polymers Ryton® R-4-240BL Polyphenylene Sulfide (PPS), 40% Glass Fiber

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

Material Notes:

Ryton® R-4-240NA and R-4-240BL 40% glass fiber reinforced polyphenylene sulfide compounds provide enhanced mechanical strength and toughness compared to other polyphenylene sulfide compounds. Features: Good Strength; Good Toughness Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Ryton-R-4-240BL-Polyphenylene-Sulfide-PPS-40-Glass-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.66 g/cc	0.0600 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	99	99	ASTM D785
Hardness, Rockwell R	120	120	ASTM D785
Tensile Strength	165 MPa	23900 psi	ASTM D638
Tensile Stress	175 MPa	25400 psi	ISO 527-2
Elongation at Break	1.7 %	1.7 %	ISO 527-2
	1.7 %	1.7 %	ASTM D638
Flexural Strength	248 MPa	36000 psi	ASTM D790
	255 MPa	37000 psi	ISO 178
Flexural Modulus	13.8 GPa	2000 ksi	ASTM D790
	14.0 GPa	2030 ksi	ISO 178
Compressive Strength	265 MPa	38400 psi	ASTM D695

Mechanical Properties	Metric	English	Comments
Izod Impact, Notched	0.850 J/cm @Thickness 3.18 mm	1.59 ft-lb/in @Thickness 0.125 in	ASTM D256
Izod Impact, Unnotched	6.40 J/cm @Thickness 3.18 mm	12.0 ft-lb/in @Thickness 0.125 in	ASTM D256
Izod Impact, Notched (ISO)	9.00 kJ/m ²	4.28 ft-lb/in ²	Notch A; ISO 180
Izod Impact, Unnotched (ISO)	40.0 kJ/m ²	19.0 ft-lb/in ²	ISO 180

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	15.0 Åµm/m-Å°C	8.33 Åµin/in-Å°F	2
	@Temperature 100 - 200 Å°C	@Temperature 212 - 392 Å°F	
	20.0 Åµm/m-Å°C	11.1 Åµin/in-Å°F	2
	@Temperature -50.0 - 50.0 Å°C	@Temperature -58.0 - 122 Å°F	
CTE, linear, Transverse to Flow	40.0 Åµm/m-Å°C	22.2 Åµin/in-Å°F	TMA; ASTM E831
	@Temperature -50.0 - 50.0 Å°C	@Temperature -58.0 - 122 Å°F	
	90.0 Åµm/m-Å°C	50.0 Åµin/in-Å°F	TMA; ASTM E831
	@Temperature 100 - 200 Å°C	@Temperature 212 - 392 Å°F	
Thermal Conductivity	0.310 W/m-K	2.15 BTU-in/hr-ftÅ²-Å°F	ASTM C177
Maximum Service Temperature, Air	200 - 220 Å°C	392 - 428 Å°F	UL Temperature Rating
Deflection Temperature at 1.8 MPa (264 psi)	265 Å°C	509 Å°F	Unannealed; ASTM D648
Flammability, UL94	V-0	V-0	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	5VA	5VA	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
Oxygen Index	54 %	54 %	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+12 ohm @Temperature 90.0 Â°C	1.00e+12 ohm @Temperature 194 Â°F	IEC 60167
Dielectric Constant	3.9	3.9	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dielectric Strength	4.0	4.0	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dissipation Factor	22.0 kV/mm	559 kV/in	ASTM D149
Arc Resistance	0.0020	0.0020	ASTM D150
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Comparative Tracking Index	0.0020	0.0020	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Arc Resistance	130 sec	130 sec	ASTM D495
Comparative Tracking Index	150 V	150 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	

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