

Solvay Specialty Polymers Ryton® R-4-232NA Polyphenylene Sulfide (PPS), 40% Glass Fiber

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

Material Notes:

Ryton® R-4-232NA 40% glass fiber reinforced polyphenylene sulfide compound complies with United States Food and Drug Administration (FDA) and European Union (EU 10/2011 and 1183/2012) regulations for use as a component of articles intended for repeat use in contact with all types of foods. Features: Food Contact Acceptable Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Ryton-R-4-232NA-Polyphenylene-Sulfide-PPS-40-Glass-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.68 g/cc	0.0607 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	179 MPa	26000 psi	ASTM D638
Tensile Stress	170 MPa	24700 psi	ISO 527-2
Elongation at Break	1.2 %	1.2 %	ASTM D638
	1.3 %	1.3 %	ISO 527-2
Flexural Strength	228 MPa	33100 psi	ASTM D790
	245 MPa	35500 psi	ISO 178
Flexural Modulus	14.0 GPa	2030 ksi	ISO 178
	14.5 GPa	2100 ksi	ASTM D790
Compressive Strength	275 MPa	39900 psi	ASTM D695

Mechanical Properties	Metric	English	Comments
Izod Impact, Notched	0.910 J/cm @Thickness 3.18 mm	1.70 ft-lb/in @Thickness 0.125 in	ASTM D256
Izod Impact, Unnotched	4.50 J/cm @Thickness 3.18 mm	8.43 ft-lb/in @Thickness 0.125 in	ASTM D256
Izod Impact, Notched (ISO)	9.00 kJ/mÂ²	4.28 ft-lb/inÂ²	Notch A; ISO 180
Izod Impact, Unnotched (ISO)	25.0 kJ/mÂ²	11.9 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
	15.0 Âµm/m-Â°C @Temperature -50.0 - 50.0 Â°C	8.33 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	0.310 W/m-K	2.15 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	50 %	50 %	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 @Frequency 1000 Hz	3.9 @Frequency 1000 Hz	ASTM D150
	3.9 @Frequency 1.00e+6 Hz	3.9 @Frequency 1.00e+6 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	150 V	150 V	UL 746

Compliance Properties	Metric	English	Comments
FDA	Yes	Yes	

Descriptive Properties	Value	Comments
Agency Ratings	EU 10/2011; FDA Food Contact	
Availability	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Natural	
Form	Pellets	
Processing Technique	Injection Molding	
RoHS Compliance	RoHS Compliant	

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