

Ryton® R-4-280BL

polyphenylene sulfide

Ryton® R-4-280BL 40% glass fiber reinforced polyphenylene sulfide compound provides a

combination of enhanced mechanical strength and good flow for injection molding.

General

Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber	
Features	• Chemical Resistant • Good Processability	• High Strength
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	
Forms	• Pellets	

Physical

	Typical Value	Unit	Test method
Density ¹	1.68	g/cm ³	ISO 1183
Water Absorption (24 hr, 23°C)	0.020	%	ASTM D570
Mold Shrinkage ²			
Flow	0.20	%	
Transverse	0.50	%	

Mechanical

	Typical Value	Unit	Test method
Tensile Strength	195	MPa	ISO 527
Tensile Elongation (Break)	1.6	%	ISO 527
Flexural Modulus	14000	MPa	ISO 178
Flexural Strength	280	MPa	ISO 178
Compressive Strength	285	MPa	ISO 604

Impact

	Typical Value	Unit	Test method
Notched Izod Impact Strength	8.0	kJ/m ²	ISO 180/A
Unnotched Izod Impact Strength	35	kJ/m ²	ISO 180

Thermal

	Typical Value	Unit	Test method
CLTE			ISO 11359-2
Flow : -50 to 50°C	1.5E-5	cm/cm/°C	
Flow : 100 to 200°C	1.0E-5	cm/cm/°C	
Transverse : -50 to 50°C	4.0E-5	cm/cm/°C	
Transverse : 100 to 200°C	9.0E-5	cm/cm/°C	
Thermal Conductivity	0.32	W/m/K	ASTM E1530
Heat Deflection Temperature - 1.8 MPa	265	°C	ASTM D648
Temperature Index	200 to 220	°C	UL 746B

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Electrical	Typical Value	Unit	Test method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	22	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
25°C, 1 kHz	4.00		
25°C, 1 MHz	3.90		
Dissipation Factor			ASTM D150
25°C, 1 kHz	2.0E-3		
25°C, 1 MHz	2.0E-3		
Arc Resistance	130	sec	ASTM D495
Comparative Tracking Index (CTI)	150	V	UL 746A
Insulation Resistance – 95% RH, 48 hr (90°C)	1.00E+12	ohms	

Flammability	Typical Value	Unit	Test method
Flame Rating (1.6 mm)	• •	V-0 5VA	UL 94

Additional Information

Test specimen molding conditions: Stock temperature, 315–345°C; Mold temperature, 135°C

Notes

Typical properties: these are not to be construed as specifications.

¹ Method A

² Measured on 102 mm x 102 mm x 3.2 mm plaques, edge gated.



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