

# Ryton® R-7-150BL

## polyphenylene sulfide

Ryton® R-7-150BL glass fiber and mineral filled polyphenylene sulfide compound provides enhanced

mechanical strength after constant or repeated exposure to high temperature water.

### General

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

### Physical

	Typical Value	Unit	Test method
Density <sup>1</sup>	1.95	g/cm <sup>3</sup>	ISO 1183
Water Absorption (24 hr, 23°C)	0.020	%	ASTM D570
Mold Shrinkage <sup>2</sup>			
Flow	0.20	%	
Transverse	0.40	%	

### Mechanical

	Typical Value	Unit	Test method
Tensile Strength	165	MPa	ISO 527
Tensile Elongation (Break)	1.1	%	ISO 527
Flexural Modulus	19000	MPa	ISO 178
Flexural Strength	255	MPa	ISO 178
Compressive Strength	300	MPa	ASTM D695

### Impact

	Typical Value	Unit	Test method
Notched Izod Impact Strength	8.0	kJ/m <sup>2</sup>	ISO 180/A
Unnotched Izod Impact Strength	25	kJ/m <sup>2</sup>	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	3.0E-5	cm/cm/°C	
Transverse : 100 to 200°C	7.5E-5	cm/cm/°C	
Thermal Conductivity	0.53	W/m/K	ASTM E1530
Heat Deflection Temperature - 1.8 MPa	265	°C	ASTM D648

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Electrical	Typical Value	Unit	Test method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	18	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
25°C, 1 kHz	5.10		
25°C, 1 MHz	5.10		
Dissipation Factor			ASTM D150
25°C, 1 kHz	2.0E-3		
25°C, 1 MHz	2.0E-3		
Arc Resistance	185	sec	ASTM D495
Comparative Tracking Index (CTI) <sup>3</sup>	150	V	UL 746
Insulation Resistance - 95% RH, 48 hr (90°C)	1.00E+13	ohms	

Flammability	Typical Value	Unit	Test method
Flame Rating <sup>3</sup> (1.6 mm)	V-0		UL 94

Additional Information	Typical Value	Unit
Hydrolytic Stability <sup>4</sup>		
Tensile Strength Retained	> 75	%
Weight Gain	< 1.0	%

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

## Notes

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

<sup>1</sup> Method A

<sup>2</sup> Measured on 102 mm x 102 mm x 3.2 mm plaques, edge gated.

<sup>3</sup> This product is not currently UL listed; test results indicate this level of performance.

<sup>4</sup> Test specimens aged 1000 hours in water at 140°C (284°F).



Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

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