

# Ryton® R-4-280NA

## polyphenylene sulfide

Ryton® R-4-280NA 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	• Natural Color	
Forms	• Pellets	

### Physical

	Typical Value	Unit	Test method
Density <sup>1</sup>	1.68	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	0.50	%	

### Mechanical

	Typical Value	Unit	Test method
Tensile Strength	200	MPa	ISO 527
Tensile Elongation (Break)	1.8	%	ISO 527
Flexural Modulus	14000	MPa	ISO 178
Flexural Strength	290	MPa	ISO 178
Compressive Strength	285	MPa	ISO 604

### Impact

	Typical Value	Unit	Test method
Notched Izod Impact Strength	9.0	kJ/m <sup>2</sup>	ISO 180/A
Unnotched Izod Impact Strength	40	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	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.

<sup>1</sup> Method A

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



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