

For more information and technical assistance contact:

Chevron Phillips Chemical Company LP
P.O. Box 4910
The Woodlands, TX 77387-4910
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Ryton[®] R-4-230

Polyphenylene Sulfide Resins

Ryton[®] R-4-230 PPS is an advanced 40% fiberglass reinforced polyphenylene sulfide compound that provides reduced flash and improved processability compared to other polyphenylene sulfide compounds.

Nominal Engineering Properties ⁽¹⁾	R-4-230NA	R-4-230BL	Test Method
Tensile Strength, MPa	175	145	ISO 527
Elongation, %	1.3	1.0	ISO 527
Flexural Strength, MPa	245	200	ISO 178
Flexural Modulus, GPa	14	14	ISO 178
Notched Izod Impact, kJ/m ²	9.0	8.0	ISO 180/A
Unnotched Izod Impact, kJ/m ²	25	20	ISO 180/U
Compressive Strength, MPa	270	270	ASTM D695
Tensile Strength, kpsi	25.0	24.0	ASTM D638
Elongation, %	1.2	1.1	ASTM D638
Flexural Strength, kpsi	34.0	32.0	ASTM D790
Flexural Modulus, Mpsi	2.1	2.1	ASTM D790
Notched Izod Impact, ft-lb/in, 1/8 in specimen	1.6	1.4	ASTM D256
Unnotched Izod Impact, ft-lb/in, 1/8 in specimen	8.5	7.5	ASTM D256
Compressive Strength, kpsi	39.0	39.0	ASTM D695
Heat Deflection Temperature, 264 psi (1.8 MPa), °C	>260	>260	ASTM D648
Heat Deflection Temperature, 264 psi (1.8 MPa), °F	>500	>500	ASTM D648
UL Temperature Index, °C	200 / 220	200 / 220	UL 746B
Coefficient of Linear Thermal Exp., X 10 ⁻⁶ in/in/°C			ASTM E831
Axial Direction, -50°C to 50°C	15	15	
Axial Direction, 100°C to 200°C	15	15	
Transverse Direction, -50°C to 50°C	40	40	
Transverse Direction, 100°C to 200°C	80	80	
Flammability Rating	V-0 / 5VA	V-0 / 5VA	UL 94
Thermal Conductivity, W/m·K	0.31	0.31	
Thermal Conductivity, BTU·in/hr·ft ² ·°F	2.1	2.1	
Dielectric Strength, V/mil	500	500	ASTM D149
Dielectric Strength, kV/mm	20	20	ASTM D149

MSDS #100000000228

Revision Date December 2010

Another quality product from



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Dielectric Constant, 1 kHz, 25°C (78°F)	3.9	3.9	ASTM D150
Dielectric Constant, 1 MHz, 25°C (78°F)	3.8	3.8	ASTM D150
Dissipation Factor, 1 kHz, 25°C (78°F)	0.002	0.002	ASTM D150
Dissipation Factor, 1 MHz, 25°C (78°F)	0.002	0.002	ASTM D150
Volume Resistivity, ohm-cm	1×10^{16}	1×10^{16}	ASTM D257
Arc Resistance, sec	127	127	ASTM D495
Comparative Tracking Index, V	150	150	UL 746A
Insulation Resistance, ohm (90°C, 95% RH, 48 hr)	1×10^{12}	1×10^{12}	
Mold Shrinkage ⁽²⁾ in/in, Flow/Transverse	0.003 / 0.005	0.003 / 0.005	
Density, g/cc	1.68	1.68	ASTM D792
Water Absorption, % (23°C, 24 hr)	0.02	0.02	ASTM D570
Color	Natural	Black	

(1) Test specimen molding conditions: Stock Temperature, 600-650°F (315-345°C); Mold Temperature, 275°F (135°C)

(2) Measured on 102 mm X 102 mm X 3.2 mm Plaques, Edge Gated

The nominal properties reported herein are typical of the product but do not reflect normal testing variances and therefore should not be used for specification purposes.

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