

# Ryton® XK2340

## polyphenylene sulfide alloy

Ryton® XK2340 40% glass fiber reinforced polyphenylene sulfide alloy compound provides excellent mechanical strength, toughness, and rigidity, along with excellent flow in

thin-walled parts, low flash characteristics, and fast cycle times. It may be easily molded in conventional injection molding equipment utilizing water heated molds.

### General

Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight	
Features	• Fast Molding Cycle • Good Flow • Good Strength	• Good Toughness • High Rigidity
Uses	• Automotive Applications	
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	
Forms	• Pellets	
Processing Method	• Injection Molding	

### Physical

	Typical Value	Unit	Test method
Density / Specific Gravity	1.56		ASTM D792
Molding Shrinkage			
Flow : 3.20 mm	0.30	%	
Across Flow : 3.20 mm	0.60	%	
Water Absorption (24 hr, 23°C)	0.30	%	ASTM D570

### Mechanical

	Typical Value	Unit	Test method
Tensile Strength			
--	193	MPa	ASTM D638
--	195	MPa	ISO 527-2
Tensile Elongation (Break)	1.8	%	ASTM D638 ISO 527-2
Flexural Modulus			
--	12400	MPa	ASTM D790
--	12000	MPa	ISO 178
Flexural Strength			
--	255	MPa	ASTM D790
--	270	MPa	ISO 178
Compressive Strength	255	MPa	ASTM D695
Poisson's Ratio	0.42		ISO 527

### Impact

	Typical Value	Unit	Test method
Notched Izod Impact			
3.18 mm	85	J/m	ASTM D256
--	8.5	kJ/m²	ISO 180/A

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Impact	Typical Value	Unit	Test method
Unnotched Izod Impact			
3.18 mm	640	J/m	ASTM D4812
--	35	kJ/m <sup>2</sup>	ISO 180
Hardness	Typical Value	Unit	Test method
Rockwell Hardness			ASTM D785
M-Scale	95		
R-Scale	115		
Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	245	°C	
CLTE			ASTM E831
Flow : -50 to 50°C	2.0E-5	cm/cm/°C	
Flow : 100 to 200°C	1.5E-5	cm/cm/°C	
Transverse : -50 to 50°C	5.5E-5	cm/cm/°C	
Transverse : 100 to 200°C	1.0E-4	cm/cm/°C	
Thermal Conductivity	0.34	W/m/K	
Electrical	Typical Value	Unit	Test method
Surface Resistivity	1.0E+15	ohms	ASTM D257
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	22	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
25°C, 1 kHz	4.30		
25°C, 1 MHz	3.90		
Dissipation Factor			ASTM D150
25°C, 1 kHz	0.020		
25°C, 1 MHz	0.010		
Arc Resistance	100	sec	ASTM D495
Comparative Tracking Index (CTI)	275	V	UL 746
Insulation Resistance <sup>1</sup> (90°C)	1.0E+12	ohms	
Flammability	Typical Value	Unit	Test method
Flame Rating (1.6 mm, Tested by CP Chemical)	HB		UL 94
Oxygen Index	35	%	ASTM D2863

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## Notes

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

<sup>1</sup> 95%RH, 48 hr



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