

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	<ul style="list-style-type: none"> • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight
Features	<ul style="list-style-type: none"> • 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
Specific Gravity	1.56		ASTM D792
Molding Shrinkage			
Flow : 3.20 mm	0.30	%	
Across Flow : 3.20 mm	0.60	%	
Water Absorption (23°C, 24 hr)	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/m ²	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 ²	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 ¹ (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.

¹ 95%RH, 48 hr

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