

Ryton® XE4050BL

Polyphenylene Sulfide Alloy

Solvay Specialty Polymers

Message:

Ryton® XE4050BL glass fiber and mineral filled polyphenylene sulfide alloy compound provides high ductility and impact strength along with good thermal stability.

General Information			
Filler / Reinforcement	Glass\Mineral		
Features	Ductile		
	Good Thermal Stability		
	High Impact Resistance		
Uses	Automotive Applications		
RoHS Compliance	RoHS Compliant		
Appearance	Black		
Forms	Pellets		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.68	g/cm ³	ASTM D792
Molding Shrinkage			
Flow : 3.20 mm	0.20	%	
Across Flow : 3.20 mm	0.40	%	
Water Absorption (23°C, 24 hr)	0.050	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	74		
R-Scale	110		
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			
--	124	MPa	ASTM D638
--	135	MPa	ISO 527-2
Tensile Elongation (Break)	1.9	%	ASTM D638, ISO 527-2
Flexural Modulus			
--	10300	MPa	ASTM D790
--	10000	MPa	ISO 178
Flexural Strength			
--	186	MPa	ASTM D790
--	195	MPa	ISO 178
Compressive Strength	200	MPa	ASTM D695
Poisson's Ratio	0.37		ISO 527

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
3.18 mm	80	J/m	ASTM D256
--	8.0	kJ/m ²	ISO 180/A
Unnotched Izod Impact			
3.18 mm	640	J/m	ASTM D4812
--	40	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	250	°C	ASTM D648
CLTE			ASTM E831
Flow : -50 to 50°C	2.0E-5	cm/cm/°C	
Flow : 100 to 200°C	1.0E-5	cm/cm/°C	
Transverse : -50 to 50°C	5.0E-5	cm/cm/°C	
Transverse : 100 to 200°C	8.5E-5	cm/cm/°C	
Thermal Conductivity	0.37	W/m/K	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	ASTM D257
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
25°C, 1 kHz	4.30		
25°C, 1 MHz	4.20		
Dissipation Factor			ASTM D150
25°C, 1 kHz	3.0E-3		
25°C, 1 MHz	8.0E-3		
Arc Resistance	130	sec	ASTM D495
Comparative Tracking Index (CTI)	150	V	UL 746
Insulation Resistance ¹ (90°C)	1.0E+11	ohms	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.60 mm, Tested by CP Chemical)	V-0		UL 94
Oxygen Index	25	%	ASTM D2863
NOTE			
1.	95%RH, 48 hr		

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