Ryton® XE5515BL
polyphenylene sulfide alloy

Ryton® XE5515BL 15% glass fiber reinforced polyphenylene sulfide alloy compound provides excellent mechanical strength and chemical resistance at elevated temperatures and is suitable for extrusion or blow molding.

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight	
Features	• Chemical Resistant	• Good Strength
Uses	• Automotive Applications	
RoHS Compliance	• RoHS Compliant	
Appearance	• Black	
Forms	• Pellets	
Processing Method	• Blow Molding	• Extrusion

Physical	Typical Value	Unit	Test method
Density / Specific Gravity	1.42		ASTM D792
Melt Mass-Flow Rate (MFR) (316°C/5.0 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage			
Flow : 3.20 mm	0.50	%	
Across Flow : 3.20 mm	0.60	%	
Water Absorption (24 hr, 23°C)	0.010	%	ASTM D570

Mechanical	Typical Value	Unit	Test method
Tensile Modulus			
--	6210	MPa	ASTM D638
--	5800	MPa	ISO 527-1
Tensile Strength			
--	103	MPa	ASTM D638
--	110	MPa	ISO 527-2
Tensile Elongation (Break)	2.9	%	ASTM D638 ISO 527-2
Flexural Modulus			
--	5520	MPa	ASTM D790
--	5500	MPa	ISO 178
Flexural Strength			
--	159	MPa	ASTM D790
--	170	MPa	ISO 178
Poisson's Ratio	0.41		ISO 527

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Impact	Typical Value	Unit	Test method
Notched Izod Impact			
3.18 mm	96	J/m	ASTM D256
--	10	kJ/m²	ISO 180/A
Unnotched Izod Impact			
3.18 mm	690	J/m	ASTM D4812
--	45	kJ/m²	ISO 180

Hardness	Typical Value	Unit	Test method
Rockwell Hardness			ASTM D785
M-Scale	118		
R-Scale	87		

Thermal	Typical Value	Unit	Test method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	190	°C	
CLTE			ASTM E831
Flow : -50 to 50°C	3.0E-5	cm/cm/°C	
Flow : 100 to 200°C	2.0E-5	cm/cm/°C	
Transverse : -50 to 50°C	5.5E-5	cm/cm/°C	
Transverse : 100 to 200°C	9.0E-5	cm/cm/°C	
Thermal Conductivity	0.23	W/m/K	

Electrical	Typical Value	Unit	Test method
Surface Resistivity	1.0E+16	ohms	ASTM D257
Volume Resistivity	1.0E+15	ohms·cm	ASTM D257
Dielectric Strength	24	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
25°C, 1 kHz	3.60		
25°C, 1 MHz	3.50		
Dissipation Factor			ASTM D150
25°C, 1 kHz	2.0E-3		
25°C, 1 MHz	5.0E-3		
Arc Resistance	100	sec	ASTM D495
Comparative Tracking Index (CTI)	150	V	UL 746A
Insulation Resistance[1] (90°C)	1.0E+13	ohms	

Flammability	Typical Value	Unit	Test method
Flame Rating (1.6 mm, Tested by CP Chemical)	V-0		UL 94
Oxygen Index	50	%	ASTM D2863

Notes

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

[1] 95%RH, 48 hr

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