

Ryton® XE5500BL

Syensqo - Polyphenylene Sulfide Alloy

General Information

Product Description

Ryton® XE5500BL unfilled polyphenylene sulfide alloy compound for extrusion provides excellent mechanical strength, ductility, toughness and chemical resistance.

General

Features	<ul style="list-style-type: none"> • Chemical Resistant • Ductile 	<ul style="list-style-type: none"> • Good Toughness • High Strength
RoHS Compliance	<ul style="list-style-type: none"> • RoHS Compliant 	
Appearance	<ul style="list-style-type: none"> • Black 	
Forms	<ul style="list-style-type: none"> • Pellets 	

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) ² (316°C/5.0 kg)	20	g/10 min	ASTM D1238
Molding Shrinkage			ISO 294-4
Across Flow : 0.126 in	1.3	%	
Flow : 0.126 in	1.3	%	
Water Absorption			
24 hr, 73°F	0.060	%	ISO 62
24 hr, 73°F	0.10	%	ASTM D570
Water Absorption (Saturation, 73°F)	0.25	%	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ISO 527-2
--	377000	psi	
-- ³	386000	psi	
Tensile Stress			ISO 527-2
Yield	8560	psi	
Yield ³	9570	psi	
Tensile Strain (Break)	15	%	ISO 527-2
Flexural Modulus	363000	psi	ISO 178
Flexural Stress	14500	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
--	23	ft·lb/in ²	
-- ³	21	ft·lb/in ²	
Charpy Unnotched Impact Strength	No Break		ISO 179
Notched Izod Impact Strength	22	ft·lb/in ²	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Melting Temperature	536	°F	ISO 11357-3
Thermal Conductivity	1.4	Btu·in/hr/ft ² /°F	ASTM E1530

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Thermal	Nominal Value	Unit	Test Method
Coefficient of Linear Thermal Expansion			ISO 11359-2
-58 to 122°F	4.2	in ⁻⁵ /in/°F	
212 to 392°F	6.7	in ⁻⁵ /in/°F	
Heat Deflection Temperature			ASTM D648
0.45 MPa	266	°F	
1.8 MPa	203	°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms·cm	ASTM D257
Dielectric Strength	610	V/mil	ASTM D149
Dielectric Constant			ASTM D150
77°F, 1 kHz	3.60		
77°F, 1 MHz	3.50		
Dissipation Factor			ASTM D150
77°F, 1 kHz	3.0E-3		
77°F, 1 MHz	9.0E-3		
Arc Resistance	100	sec	ASTM D495
Comparative Tracking Index (CTI) ⁴	125	V	UL 746A

Notes

¹ Typical properties: these are not to be construed as specifications.

² Procedure B

³ Conditioned data is meant to simulate 23°C 50% RH equilibrium values. Conditioning of specimens was achieved per ISO 1110 by exposing specimens for 11 days, 70°C and 62% RH.

⁴ This product is not currently UL listed; test results indicate this level of performance.