Ryton® XE5515BL

Syensqo - Polyphenylene Sulfide Alloy

General Information

Product Description

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

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

Properties [1]

Physical	Nominal 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 (0.126 in)	5.0E-3	in/in	
Molding Shrinkage - Across Flow (0.126 in)	6.0E-3	in/in	
Water Absorption (24 hr, 73°F)	0.010	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	900000	psi	ASTM D638
Tensile Modulus	841000	psi	ISO 527-1
Tensile Strength	15000	psi	ASTM D638
Tensile Stress	16000	psi	ISO 527-2
Tensile Elongation (Break)	2.9	%	ASTM D638
Tensile Strain (Break)	2.9	%	ISO 527-2
Flexural Modulus	800000	psi	ASTM D790
Flexural Modulus	798000	psi	ISO 178
Flexural Strength	23000	psi	ASTM D790
Flexural Stress	24700	psi	ISO 178
Poisson's Ratio	0.41		ISO 527
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (0.125 in)	1.8	ft·lb/in	ASTM D256
Notched Izod Impact Strength	4.8	ft·lb/in²	ISO 180/A
Unnotched Izod Impact (0.125 in)	13	ft·lb/in	ASTM D4812
Unnotched Izod Impact Strength	21	ft·lb/in²	ISO 180
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness			ASTM D785
M-Scale	118		
R-Scale	87		

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	374	°F	
CLTE - Flow			ASTM E831
-58 to 122°F	1.7E-5	in/in/°F	
212 to 392°F	1.1E-5	in/in/°F	
CLTE - Transverse			ASTM E831
-58 to 122°F	3.1E-5	in/in/°F	
212 to 392°F	5.0E-5	in/in/°F	
Thermal Conductivity	1.6	Btu·in/hr/ft²/°F	

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	ASTM D257
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	2.0E-3		
77°F, 1 MHz	5.0E-3		
Arc Resistance	100	sec	ASTM D495
Comparative Tracking Index (CTI)	150	V	UL 746A
Insulation Resistance [2] (194°F)	1.0E+13	ohms	

Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in, Tested by CP Chemical)	V-0		UL 94
Oxygen Index	50	%	ASTM D2863

Notes

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

[2] 95%RH, 48 hr