



Ryton® XE5430BL ECHO RP

Syensqo - Polyphenylene Sulfide Alloy

General Information

Product Description

Ryton® XE5430BL ECHO RP 30% glass fiber reinforced polyphenylene sulfide alloy compound provides high ductility and impact resistance along with good thermal stability. XE5430BL ECHO RP grades are a Mass Balanced certified grades linked to allocated bio-circular non-fossil feedstock.

General

Filler / Reinforcement	• Glass Fiber
Recycled Content	• Chemical based - mass balanced, 43%
Features	<ul style="list-style-type: none"> • Chemical Resistant • Ductile • Good Toughness • High Strength
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Forms	• Pellets

Properties¹

Physical	Nominal Value	Unit	Test Method
Density ²	1.52	g/cm ³	ISO 1183
Water Absorption (24 hr, 73°F)	0.020	%	ASTM D570
Mold Shrinkage ³			
Flow	0.20	%	
Transverse	0.60	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.57E+6	psi	ISO 527
Tensile Strength	23600	psi	ISO 527
Tensile Elongation (Break)	2.1	%	ISO 527
Flexural Modulus	1.39E+6	psi	ISO 178
Flexural Strength	34100	psi	ISO 178
Compressive Strength	31200	psi	ISO 604
Poisson's Ratio	0.38		ISO 527
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	4.5	ft·lb/in ²	ISO 179/1A
Charpy Unnotched Impact Strength	29	ft·lb/in ²	ISO 179/1U
Notched Izod Impact Strength	5.2	ft·lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength	26	ft·lb/in ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
CLTE - Flow			ISO 11359-2
-58 to 122°F	1.1E-5	in/in/°F	
212 to 392°F	5.6E-6	in/in/°F	
CLTE - Transverse			ISO 11359-2
-58 to 122°F	3.1E-5	in/in/°F	
212 to 392°F	5.0E-5	in/in/°F	
Thermal Conductivity	1.9	Btu·in/hr/ft ² /°F	ASTM E1530
Heat Deflection Temperature - 1.8 MPa	491	°F	ASTM D648

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Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	510	V/mil	ASTM D149
Dielectric Constant			ASTM D150
77°F, 1 kHz	3.70		
77°F, 1 MHz	3.70		
Dissipation Factor			ASTM D150
77°F, 1 kHz	2.0E-3		
77°F, 1 MHz	2.0E-3		
Arc Resistance	125	sec	ASTM D495
Comparative Tracking Index	150	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	185	°F
Drying Time	4.0 to 6.0	hr
Rear Temperature	563 to 581	°F
Middle Temperature	572 to 590	°F
Front Temperature	581 to 599	°F
Nozzle Temperature	581 to 599	°F
Processing (Melt) Temp	590 to 608	°F
Mold Temperature	275 to 302	°F

Notes

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

² Method A

³ Measured on 102 mm x 102 mm x 3.2 mm plaques, edge gated.