HK:+852-69575415 China GuangDong:+13538586433 ShangHai:+18816996168

Ryton® XE5430NA

Syensqo - Polyphenylene Sulfide

General Information

Product Description

Ryton® XE5430NA 30% glass fiber reinforced polyphenylene sulfide alloy compound provides high ductility and impact resistance along with good thermal stability.

General

Filler / Reinforcement	• Glass Fiber	
Features	• Chemical Resistant • Ductile	• Good Toughness • High Strength
RoHS Compliance	• RoHS Compliant	
Appearance	• Natural Color	
Forms	• Pellets	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.52	g/cm³	ISO 1183
Water Absorption (24 hr, 73°F)	0.020	%	ASTM D570
Water Absorption (24 hr, 73°F)	0.020	%	ISO 62
Water Absorption [2] (Saturation, 73°F)	0.13	%	Internal Method
Water Absorption [2] (Equilibrium, 73°F, 50%)	0.11	%	Internal Method
Mold Shrinkage [3]			
Flow	0.20	%	
Transverse	0.60	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.52E+6	psi	ISO 527-1
Tensile Stress			ISO 527-2
Break	24700	psi	
Break [4]	24800	psi	
Tensile Strain			ISO 527-2
Break	2.4	%	
Break [4]	2.3	%	
Flexural Modulus	1.38E+6	psi	ISO 178
Flexural Strength	36300	psi	ISO 178
Compressive Strength	31200	psi	ISO 604

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
--	6.0	ft·lb/in²	
-- [4]	5.2	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179
--	31	ft·lb/in²	
-- [4]	30	ft·lb/in²	
Notched Izod Impact Strength	5.7	ft·lb/in²	ISO 180/A
Unnotched Izod Impact Strength	29	ft·lb/in²	ISO 180

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Thermal	Nominal Value	Unit	Test Method
Melting Temperature	536	°F	ISO 11357-3
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/ft²/°F	ASTM E1530
Heat Deflection Temperature - 1.8 MPa	491	°F	ASTM D648
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		
1 MHz	3.70		
Dissipation Factor			ASTM D150
77°F, 1 kHz	2.0E-3		
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 (0.12 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] Solvay Test Method

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

[4] 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.