Ryton® XE5430NA
polyphenylene sulfide

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

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber	
Features	• Chemical Resistant • Ductile	• Good Toughness • High Strength
RoHS Compliance	• RoHS Compliant	
Appearance	• Natural Color	
Forms	• Pellets	

Physical	Typical Value	Unit	Test method
Density	1.52	g/cm³	ISO 1183
Water Absorption			
24 hr, 23°C	0.020	%	ASTM D570 ISO 62
Saturation, 23°C [1]	0.13	%	Internal Method
Equilibrium, 23°C, 50% [1]	0.11	%	Internal Method
Mold Shrinkage [2]			
Flow	0.20	%	
Transverse	0.60	%	

Mechanical	Typical Value	Unit	Test method
Tensile Modulus	10500	MPa	ISO 527-1
Tensile Stress			ISO 527-2
Break	170	MPa	
Break [3]	171	MPa	
Tensile Strain			ISO 527-2
Break	2.4	%	
Break [3]	2.3	%	
Flexural Modulus	9500	MPa	ISO 178
Flexural Strength	250	MPa	ISO 178
Compressive Strength	215	MPa	ISO 604

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Impact	Typical Value	Unit	Test method
Charpy Notched Impact Strength			ISO 179
--	13	kJ/m²	
-- [3]	11	kJ/m²	
Charpy Unnotched Impact Strength			ISO 179
--	65	kJ/m²	
-- [3]	62	kJ/m²	
Notched Izod Impact Strength	12	kJ/m²	ISO 180/A
Unnotched Izod Impact Strength	60	kJ/m²	ISO 180

Thermal	Typical Value	Unit	Test method
Melting Temperature	280	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow : -50 to 50°C	2.0E-5	cm/cm/°C	
Flow : 100 to 200°C	1.0E-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	0.27	W/m/K	ASTM E1530
Heat Deflection Temperature - 1.8 MPa	255	°C	ASTM D648

Electrical	Typical Value	Unit	Test method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
25°C, 1 kHz	3.70		
1 MHz	3.70		
Dissipation Factor			ASTM D150
25°C, 1 kHz	2.0E-3		
1 MHz	2.0E-3		
Arc Resistance	125	sec	ASTM D495
Comparative Tracking Index	150	V	IEC 60112

Flammability	Typical Value	Unit	Test method
Flame Rating (3.0 mm)	V-0		UL 94

Injection	Typical Value	Unit
Drying Temperature	85	°C
Drying Time	4.0 to 6.0	hr
Rear Temperature	295 to 305	°C
Middle Temperature	300 to 310	°C
Front Temperature	305 to 315	°C
Nozzle Temperature	305 to 315	°C
Processing (Melt) Temp	310 to 320	°C
Mold Temperature	135 to 150	°C

Notes

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

[1] Solvay Test Method

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

[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.

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