Ryton® QC160N

Syensqo - Polyphenylene Sulfide

General Information

Product Description

Ryton® QC160N (granular powder) unfilled polyphenylene sulfide exhibits excellent thermal stability and chemical resistance and is suitable for thermoplastic extrusion processes.

General

Features	• Chemical Resistant	• Good Thermal Stability
Uses	• Film	• Stock Material for Machining
RoHS Compliance	• RoHS Compliant	
Appearance	• Natural Color	
Forms	• Powder	
Processing Method	• Extrusion	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.34		ASTM D792
Melt Mass-Flow Rate (MFR) [2] (316°C/5.0 kg)	45	g/10 min	ASTM D1238
Water Absorption (24 hr, 73°F)	0.050	%	ASTM D570
Ash Content	0.30	wt%	ISO 3451-1
Volatiles (302°F)	< 0.30	wt%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	493000	psi	ISO 527-1
Tensile Stress	10900	psi	ISO 527-2
Tensile Strain (Break)	6.0	%	ISO 527-2
Flexural Modulus	493000	psi	ISO 178
Flexural Stress	18900	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (0.125 in)	1.0	ft·lb/in	ASTM D256
Notched Izod Impact Strength	1.9	ft·lb/in²	ISO 180/A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	320	°F	ASTM D648
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	203	°F	
Glass Transition Temperature	194	°F	ISO 11357-2
Vicat Softening Temperature	> 356	°F	ISO 306
Melting Temperature	536	°F	ISO 11357-3
CLTE - Flow			ASTM E831
-58 to 122°F	2.8E-5	in/in/°F	
212 to 392°F	6.4E-5	in/in/°F	
Thermal Conductivity	2.1	Btu·in/hr/ft²/°F	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+16	ohms	ASTM D257
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	600	V/mil	ASTM D149

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Electrical	Nominal Value	Unit	Test Method
Dielectric Constant (77°F, 1 MHz)	3.20		ASTM D150
Dissipation Factor (77°F, 1 MHz)	2.0E-3		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.06 in, Tested by CP Chemical)	V-0		UL 94
Oxygen Index	44	%	ASTM D2863

Notes

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

[2] Procedure B