

# Ryton® QC160P

## Syensqo - Polyphenylene Sulfide

### General Information

#### Product Description

Ryton® QC160P (pelletized) polyphenylene sulfide exhibits excellent thermal stability and chemical resistance and is suitable for thermoplastic extrusion processes.

#### General

Features	<ul style="list-style-type: none"> <li>Chemical Resistant</li> <li>Good Thermal Stability</li> </ul>
Uses	<ul style="list-style-type: none"> <li>Film</li> <li>Stock Material for Machining</li> </ul>
RoHS Compliance	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
Appearance	<ul style="list-style-type: none"> <li>Natural Color</li> </ul>
Forms	<ul style="list-style-type: none"> <li>Pellets</li> </ul>
Processing Method	<ul style="list-style-type: none"> <li>Extrusion</li> </ul>

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.34		ASTM D792
Melt Mass-Flow Rate (MFR) <sup>2</sup> (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/in <sup>2</sup>	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	320	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed	203	°F	ASTM D648
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/ft <sup>2</sup> /°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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Procedure B