Fortron® 0214

Celanese Corporation - Polyphenylene Sulfide

Tuesday, November 5, 2019

General Information

Product Description

0214 is an unfilled grade exhibiting good melt strength. This grade demonstrates excellent heat and chemical resistance. It can be extruded to produce multi-filaments. Due to the excellent balance of flow and melt strength, this product is occasionally used for injection molding parts. Available standard in powder (0214B1), pellet (0214P1) and crystallized pellet (0214C1) form.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Chemical Resistant • Good Flow	• Good Heat Resistance • Good Melt Strength	
Uses	• Filaments		
RoHS Compliance	• Contact Manufacturer		
Forms	• Pellets	• Powder	
Processing Method	• Filament Extrusion	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.35	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.5	%	
Flow	1.2	%	
Water Absorption (Saturation, 73°F)	0.020	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	551000	psi	ISO 527-2/1A
Tensile Stress (Break)	13100	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	544000	psi	ISO 178
Flexural Stress	18100	psi	ISO 178
Compressive Stress (6% Strain)	17400	psi	ISO 604
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength (73°F)	1.7	ft·lb/in²	ISO 180/1A
Unnotched Izod Impact Strength (73°F)	21	ft·lb/in²	ISO 180/1U
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	95		ISO 2039-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	230	°F	ISO 75-2/A
Heat Deflection Temperature (1160 psi, Unannealed)	203	°F	ISO 75-2/C
Glass Transition Temperature [2]	194	°F	ISO 11357-2
Melting Temperature [2]	536	°F	ISO 11357-3
CLTE - Flow	2.9E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	2.9E-5	in/in/°F	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+11	ohms·cm	IEC 60093

Fortron® 0214

Celanese Corporation - Polyphenylene Sulfide

Electrical	Nominal Value	Unit	Test Method
Electric Strength	460	V/mil	IEC 60243-1
Relative Permittivity (1 kHz)	3.20		IEC 60250
Comparative Tracking Index	125	V	IEC 60112

Fill Analysis	Nominal Value	Unit	Test Method
Melt Density	1.15	g/cm³	Internal Method
Specific Heat Capacity of Melt	0.437	Btu/lb/°F	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	230 to 248	°F
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Hopper Temperature	68 to 86	°F
Rear Temperature	554 to 572	°F
Middle Temperature	572 to 590	°F
Front Temperature	590 to 608	°F
Nozzle Temperature	572 to 590	°F
Processing (Melt) Temp	590 to 608	°F
Mold Temperature	284 to 320	°F
Injection Rate	Fast	
Back Pressure	< 435	psi

Injection Notes

Feeding zone temperature: 60 to 80°C
Zone4 temperature: 310 to 320°C
Hot runner temperature: 310 to 320°C

Notes

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

[2] 10°C/min