

Quadrant EPP PPSU 1000

Polyphenylsulfone
Quadrant Engineering Plastic Products

Message:

PPSU 100 stock shapes are produced from RADEL® R resin.

General Information	
Features	Good Chemical Resistance
	Good Impact Resistance
	Hydrolysis Resistant
	Steam Sterilizable
Uses	Medical/Healthcare Applications
	Pharmaceuticals
Agency Ratings	USP Class VI
Appearance	Black
Forms	Disc
	Preformed Parts
	Rod

Physical	Nominal Value	Unit	Test Method
Density	1.29	g/cm ³	ISO 1183
Water Absorption			ISO 62
23°C, 24 hr, 3.00 mm	0.35	%	
Saturation, 23°C	1.2	%	
Equilibrium, 23°C, 50% RH	0.60	%	
Water Absorption			ISO 62
23°C, 3.00 mm ¹	0.72	%	
23°C, 3.00 mm ²	55.0	mg	
23°C, 3.00 mm ³	26.0	mg	

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale, 10.0 mm)	80		ISO 2039-2

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2500	MPa	ISO 527-2/1B/1
Tensile Stress (Yield)	76.0	MPa	ISO 527-2/1B/5
Tensile Strain (Break)	30	%	ISO 527-2/1B/5
Compressive Stress			ISO 604/1
2% Strain	35.0	MPa	
1% Strain	18.0	MPa	

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength	No Break		ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	200	°C	ISO 75-2/A
Continuous Use Temperature			
-- 4	180	°C	
-- 5	210	°C	
Glass Transition Temperature	220	°C	
CLTE - Flow			
23 to 100°C	5.5E-5	cm/cm/°C	
23 to 150°C	5.5E-5	cm/cm/°C	
> 150°C	5.5E-5	cm/cm/°C	
Thermal Conductivity (23°C)	0.35	W/m/K	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+13	ohms	IEC 60093
Volume Resistivity	> 1.0E+14	ohms·cm	IEC 60093
Relative Permittivity			IEC 60250
100 Hz	3.40		
1 MHz	3.50		
Dissipation Factor			IEC 60250
100 Hz	1.0E-3		
1 MHz	5.0E-3		
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm	V-0		
3.00 mm	V-0		
Oxygen Index	44	%	ISO 4589-2
NOTE			
1.	96 hrs		
2.	Weight, 96 hrs		
3.	Weight, 24 hrs		
4.	20000 hrs		
5.	Short periods		

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