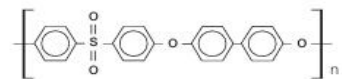


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Polyphenylsulfone (PPSU)



Technical Data Sheet

Polyphenylsulfone (PPSU) is a high-performance amorphous thermoplastic known for its outstanding toughness, high heat resistance, and excellent hydrolytic stability. It belongs to the sulfone family of polymers and is widely used in demanding applications across medical, aerospace, plumbing, and electronics industries.



Values

			Unreinforced PPSU		
			HV001	MV001	LV001
General	Units	Method	Typical Value	Typical Value	Typical Value
Density	g/cm ³	ISO 1183	1.29	1.29	1.29
Water absorption by saturation (23°C)%	%	ISO 62	0.6	0.6	0.6
Melt volume flow rate 365 °C/5Kg	g/10min	ISO1133	10-18	15-28	15-28
Flammability @1.5mm		UL 94	V-0	V-0	V-0
Mechanical					
Tensile strength	Mpa	ISO527	70	70	70
Tensile modulus	Mpa	ISO527	2270	2270	2270
Tensile Elongation (yield)	%	ISO527	7.8	7.8	7.8
Flexual strength	Mpa	ISO178	105	105	105
Flexual modulus	Mpa	ISO178	2400	2400	2400
Impact Strength,Notched	kJ/m2	ISO180	68	68	68
Thermal					
Heat distortion Tempreture	°C	ISO 75	196	196	196
Glass Transition (Tg)	°C	ISO 11357	220	220	220
Electrical Data					
Volume Resistivity	Ω .m	IEC 60093	>1E+13	>1E+13	>1E+13
Surface resistivity	Ω .m	IEC 60093	>1E+15	>1E+15	>1E+15
Dielectric Constant		IEC 60250	3.8	3.8	3.8
			3.7	3.7	3.7
Dissipation Factor	E-4	IEC 60250	15	15	15
			86	86	86
Dielectric Strength	kV mm-1	IEC 60243-1	44	44	44
Comparative Tracking Index		IEC 60112	150	150	150
Processing conditions					
Drt Temp.°C			160		
Dry Time(H)			between 6-8		
Melt temp.°C			340-360		
Barrel Zone Temp	Rear		340		
	Center		350		
	Front		360		
Mold temp			140-160		
Injection speed			medium to high		

Benefit

- Natural with high HDT/A of 196°C
- High RTI of 180°C
- Superior toughness and impact resistance strength with 690J/m
- Exceptional long-term hydrolytic stability
- Withstands over 1,000 cycles of steam sterilization@134 °C without any significant loss of properties
- Inherently flame retardant, transparent and colorable

Application

- Sterilization cases and trays
- Dental and surgical instruments
- Aircraft interiors
- Airline catering trolleys, Food container
- Hot water fittings and plumbings manifolds
- Food service trays and baby-feeding bottle
- Sheet, rod and pipe

