



Material	Virgin grade PPSU
Model number	PRS-PPSU-301NC
Color	Transparent/White/Custom
Features	Alkali resistant, Good disinfection, Steam sterilized, Hydrolysis stability, Gamma radiation, E-beam disinfection, Biocompatible, Flame Characteristics, High pressure disinfection, Acidproof, High Heat Resistance, Radioactive, Ultra high toughness, Radiation disinfection, Solvent resistance, Resistance to the steam, Heat Stabilized, High ESCR, Ethylene oxide disinfection, Heat sterilization, V-0
Process Methods	Injection molding and Extrusion

Property	Nominal Value	Unit	Test Method
PHYSICAL			
Density	1.29	g/cm ³	ASTM D792
Melt Flow Rate — 365°C, 5.0kg	20 to 28	g/10min	ASTM D1238
Shrinkage — MD:3.2mm	0.7	%	ASTM D955
Water Absorption — balance	1.1	%	ASTM D570
Water Absorption — 24hr	0.37	%	ASTM D570
MECHANICAL			
Tensile modulus—3.18mm	2340	MPa	ASTM D638
Tensile strength — 3.18mm	69.6	MPa	ASTM D638
Tensile strain — Fracture, 3.18mm	60 to 120	%	ASTM D638
Tensile strain — Yield, 3.18mm	7.2	%	ASTM D638
Flexural Modulus — 3.17mm	2410	MPa	ASTM D790
Flexural Strength — 5% strain, 3.18mm	91	MPa	ASTM D790
IMPACT			
Izod Notched Impact strength— 3.2mm	690	J/m	ASTM D256
Tensile impact strength — 3.18mm	399	kJ/m ²	ASTM D1822
THERMAL			
HDT — 1.8 MPa, unannealed, 3.2mm	207	°C	ASTM D648
Glass transition temperature	220	°C	DSC
Coeff. of linear therm expansion — MD:3.2mm	5.6E-5	1/°C	ASTM D696
ELECTRICAL			
Volume resistivity — 3.18mm	9.0E+15	ohms·cm	ASTM D257
Dielectric strength — 0.0254mm	>200	kV/mm	ASTM D149
Dielectric strength—3.18mm	15	kV/mm	ASTM D149
Dielectric constant — 3.18mm, 60Hz	3.44		ASTM D150
FLAME CHARACTERISTICS			
Flame rating — 0.76mm	V-0		UL 94
Supplementary information			
Steam Sterilization	>1000	Cycles	
Injection			
Drying temperature	149	°C	
Drying time	2.5	hr	
Processing (melt) temperature	360 to 391	°C	
Mold temperature	138 to 163	°C	
Screw compression ratio	2.2:1.0		
Extrusion			
Drying temperature	171	°C	
Drying time	4	hr	