



Sustason PPSU (Radel R)

Polyphenolsulfone (Rochling Engineering)

SUSTASON PPSU (polyphenolsulfone) is produced from Radel® R resin. It is an amorphous product that offers improved chemical resistance and thermal stability over most amorphous thermoplastics. SUSTASON PPSU has the added advantage of superior impact resistance over polycarbonate. It is preferred over all other amorphous thermoplastics, including PEI (Ultem®), where added thermal performance impact resistance and a higher number of steam sterilization cycles is desired.

Product Features:

- ⊕ Excellent thermal stability
- ⊕ High impact resistance
- ⊕ Resistance to hydrolysis
- ⊕ Continuous use temperature of 320°F
- ⊕ FDA and USP Class VI compliant
- ⊕ Outstanding steam autoclaving resistance
- ⊕ Available in Natural (bone white), Black, Grey, Blue & Green
- ⊕ Custom colors available by request

Typical Properties of Stock Shapes

Property	Units	Test Method	Value Natural
Specific Gravity	-	ASTM D 792	1.29
Water Absorption 24 hrs	%	ASTM D 570	0.37
Water Absorption Saturation	%	ASTM D 570	1.1
Flammability	-	UL 94	V-0
Tensile Strength	psi	ASTM D 638	11,000
Elongation	%	ASTM D 638	30
Modulus	psi	ASTM D 638	390,000
Flexural Strength	psi	ASTM D 790	15,500
Modulus	psi	ASTM D 790	350,000
Notched Izod	ft-lb/in	ASTM D 256	13
Rockwell Hardness	-	ASTM D 785	R120
HDT @ 264 psi	°F	ASTM D 648	420
Coefficient Linear thermal expansion	in/in/°F	ASTM D 696	3.1 x 10 ⁻⁵
Dielectric Strength	V / mil	ASTM D 149	400
Volume Resistivity	ohm-cm	ASTM D 257	10 ¹⁵
Dielectric Constant	-	ASTM D 150	3.4

Typical Applications

- ⊕ Aircraft bezels
- ⊕ Medical trays
- ⊕ Aircraft interior parts
- ⊕ Instrument handles
- ⊕ Medical device components
- ⊕ Provisional trials
- ⊕ Lab animal cages

Certifications

- ⊕ ASTM D6394-05 Sp0311
- ⊕ FDA compliant

