

TECASON[™]S

PSU (Polysulfone)

TECASON[™]S is a transparent engineering plastic known for its chemical resistance, rigidity, high-tempera-

ture performance, and its ability to operate in an autoclave environment. TECASON[™]S is FDA and NSF com-

pliant and holds its excellent mechanical properties over a wide range of temperatures.

- **Autoclave resistance**

TECASON[™]S maintains dimensional stability and mechanical performance through repeated autoclaves.

- **Excellent electrical properties**

- **Good chemical resistance**

TECASON[™]S performs well in mineral acids, alkali, salt solutions, and hydrocarbons.

- **Superior resistance to creep**

- **FDA and NSF compliant**

- **High-temperature performance**

TECASON[™]S has a heat deflection temperature of 345°F and a long-term continuous use temperature of 285°F.

- **Excellent hydrolytic stability**

- **High strength and rigidity**

- **Flame retardant**

TECASON[™]S is rated UL94 V-0

TECASON[™]S' unique combination of chemical and hydrolytic resistance, high-temperature performance, good mechanical properties, and agency approvals make it an excellent choice for applications in the pharmaceutical, medical, food service equipment, semiconductor processing, and electronic equipment industries.

TYPICAL PROPERTY VALUES

	PROPERTIES	ASTM Test Method	Units	TECASON™S
PHYSICAL	Density	D792	lbs/in ³	0.045
	Specific Gravity	D792	-	1.24
	Water Absorption, @24 hours, 73°F	D570	%	0.30
MECHANICAL	Tensile Strength @ Break, 73°F	D638	psi	10,200
	Tensile Modulus, 73°F	D638	psi	3.6 x 10 ⁵
	Elongation @ Break, 73°F	D638	%	50 - 100
	Flexural Strength, 73°F	D790	psi	15,400
	Flexural Modulus, 73°F	D790	psi	390,000
	Izod Impact Strength, Notched, 73°F	D256	ft-lbs/in	1.3
	Rockwell Hardness	D785	"R" Scale	120
	Coefficient of Friction, 40 psi, 50 fpm	-	Dynamic	0.37
THERMAL	Deflection Temperature @ 66 psi	D648	°F	358
	@ 264 psi	D648	°F	345
	Maximum Temperature, Long Term	-	°F	285
	Short Term	-	°F	340
	Coefficient of Linear Thermal Expansion	D696	in/in/°F	3.1 x 10 ⁻⁵
ELECTRICAL	Dielectric Strength	D149	V/mil	425
	Dielectric Constant, @ 60 Hz, 73°F, 50% RH	D150	-	3.1
	Dissipation Factor, @ 60 HZ, 73°F	D150	-	0.001
	Volume Resistivity, 73°F	D257	ohm-cm	5 x 10 ¹⁶

MATERIAL AVAILABILITY

Rods: Diameters: 3/16" to 5"
 Length: 3/16" to 4-3/4" – 10'
 5" – 5'

Plates: 1/4" to 4" thickness inclusive are 2' x 4'

Primary Specification (Resin) (Typical)

ASTM-D-6394SPO112

Profiles, tubes, and special sizes are custom-produced on request.



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