# TECASON™ S

### Polysulfone

Ensinger Inc.

#### Message:

TECASON $^{\mathsf{TMS}}$  is a transparent engineering plastic known for its chemical resistance, rigidity, high-temperature performance, and its ability to operate in an autoclave environment. TECASON $^{\mathsf{TMS}}$  is FDA and NSF compliant and holds its excellent mechanical properties over a wide range of temperatures. TECASON $^{\mathsf{TMS}}$ ' unique combination of chemical and hydrolytic resistance, hightemperature 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.

General Information					
Features	Flame Retardant				
	Food Contact Acceptable				
	Good Chemical Resistance				
	Good Creep Resistance				
	Good Electrical Properties				
	High Clarity				
	High Heat Resistance				
	High Rigidity				
	High Strength				
	Hydrolytically Stable				
Uses	Electrical/Electronic Applications				
	Food Service Applications				
	Medical/Healthcare Applications				
	Pharmaceuticals				
Agency Ratings	FDA Unspecified Rating				
	NSF Unspecified Rating				
Appearance	Clear/Transparent				
Forms	Shapes				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.24	g/cm³	ASTM D792		
Water Absorption (23°C, 24 hr)	0.30	%	ASTM D570		
Hardness	Nominal Value	Unit	Test Method		
Rockwell Hardness (R-Scale)	120		ASTM D785		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus (23°C)	2480	MPa	ASTM D638		
Tensile Strength (Break, 23°C)	70.3	MPa	ASTM D638		
Tensile Elongation (Break, 23°C)	50 to 100	%	ASTM D638		

Flexural Modulus (23°C)	2690	MPa	ASTM D790
Flexural Strength (23°C)	106	MPa	ASTM D790
Coefficient of Friction <sup>1</sup> (vs. Itself - Dynamic)	0.37		
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	69	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	181	°C	
1.8 MPa, Unannealed	174	°C	
CLTE - Flow	5.6E-5	cm/cm/°C	ASTM D696
Maximum Service Temperature			
Long Term	141	°C	
Short Term	171	°C	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (23°C)	5.0E+16	ohms·cm	ASTM D257
Dielectric Strength	17	kV/mm	ASTM D149
Dielectric Constant <sup>2</sup> (23°C, 60 Hz)	3.10		ASTM D150
Dissipation Factor (23°C, 60 Hz)	1.0E-3		ASTM D150
NOTE			
1.	40 psi, 50 fpm		
2.	50% RH		

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