



Material: PSU 1000 (Radel®)

PSU 1000 stock shapes are produced from non UV-stabilised polysulophone resin. High max allowable service temperatures, high strength and stiffness, excellent hydrolysis resistance, dimensional stability and resistance against high energy radiation (gamma and x-rays). Good electrical insulating and dielectric properties. Compared to PEI 1000 it has a lower property profile often replacing polycarbonate when a higher temperature resistance and improved chemical resistance are required.

Technical Specification

Property	Test Method	Units	Value
Colour	-	-	Yellow/Translucent
Density	ISO 1183	g/cm ³	1.24
Water Absorption - saturation in air (23°C/50%RH)	-	%	0.4
Water Absorption - saturation in water (23°C)	-	%	0.85
Tensile stress at yield/break* ¹	ISO 527	Mpa	80/-
Tensile modulus of elasticity* ¹	ISO 527	Mpa	2700
Tensile strain at break* ¹	ISO 527	%	10
Impact - Charpy	179/1eU	kJ/m ²	No break
Impact – Charpy notched	179/1eA	kJ/m ²	4
Hardness	Rockwell ISO 2039-2	-	M91
Glass transition temperature	-	°c	190
Max service temp in air short periods	-	°c	180
Max service temp continuously for 20000hrs	-	°c	150
Linear thermal expansion coefficient (23-100°C)	-	m/(m.k)	60x10 ⁻⁶
Linear thermal expansion coefficient (23-150°C)	-	m/(m.k)	60x10 ⁻⁶
Linear thermal expansion coefficient (+150°C)	-	m/(m.k)	-
Thermal Conductivity	-	W/(K.m)	0.26
Flammability (3mm thickness)	-	-	HB
Electric Strength	ISO 60243	kV/mm	30
Volume resistivity* ¹	ISO 60093	Ohm.cm	10 ¹⁷
Surface resistivity* ¹	ISO 60093	Ohm	10 ¹⁷
* ¹ Measured on dry test specimens (where applicable)			

Availability:

Please call for further details.

Applications:

Commonly used in food equipment i.e. milk machines, pumps, valves, filtration plates, heat exchangers and for medical components subject to repeated cleaning and sterilisation.

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The data shown are typical values and are not intended to represent specifications. Their aim is to guide the user toward a material choice.

Not all material sizes shown within the availability programme of this data sheet are available as standard.

Please contact ABG Rubber and Plastics Ltd for further details.