



RADEL[®] R5500 POLYPHENYLSULFONE

Stock shapes extruded from Radel[®] R resins offer a superior combination of high performance properties that include excellent thermal stability, outstanding toughness, and good environmental stress cracking resistance. These properties make Radel[®] R stock shapes attractive for a variety of demanding applications. The standard color of Radel[®] R is off white, but a transparent grade is available.

The following physical property information is based on typical values of the base polyphenylsulfone resin.

Applications Include:

- Dairy connectors
- Automotive fuses
- Food service trays
- Aircraft interior parts
- Sockets and connectors

Advantages of Radel R5500:

- Outstanding impact resistance
- Resistance to hydrolysis
- Inherent flame resistance
- Low NBS smoke evolution
- Excellent thermal stability
- Combustion resistance without additives

Manufacturing Capabilities:

- **Rod:** 1/4" to 8" dia.
- **Sheet:** .035" to 1/4" thick
- **Slab:** 3/8" to 4" thick
- **Film:** .002" to .029" thick

Colors/Grades:

- Off white/Bone NT15
- Transparent amber NT

In addition to our standard capabilities, Westlake also has the ability to process custom resins in various sizes and colors with some exceptions.

Property	Units	Test Standard	Result
Mechanical			
Tensile Strength @yield	psi	ASTM D638	10,100
Tensile Modulus	psi	ASTM D638	340,000
Tensile Elongation @yield	%	ASTM D638	7.2
Tensile Elongation @break	%	ASTM D638	60.0-120.0
Flexural Strength @yield	psi	ASTM D790	13,200
Flexural Modulus	psi	ASTM D790	350,000
Izod Impact Strength			
Un-Notched	ft•lbs/in	ASTM D256	No Break
Notched	ft•lbs/in	ASTM D256	13.0
Hardness	R Scale	ASTM D785	R122
Thermal			
Heat Deflection Temperature			
@66 psi	°F	ASTM D648	417
@264 psi	°F	ASTM D648	405
Coefficient of Thermal Expansion	in/in/°F	ASTM D648	3.1x10 ⁻⁵
Flammability Rating @.031"	—	UL94	V-0
Thermal Conductivity	(BTU•in)/(hr•ft ² •°F)	ASTM E1530	2.08
Limiting Oxygen Index	%	ASTM D2863	44
Electrical			
Dielectric Strength	V/mil	ASTM D149	360
Dielectric Constant @60Hz	—	ASTM D150	3.44
Dissipation Factor @1MHz	—	ASTM D150	0.0076
Volume Resistivity	ohm•cm	ASTM D257	9x10 ¹⁵
Other			
Specific Gravity	—	ASTM D792	1.29
Water Absorption @24 hours	%	ASTM D570	0.37