

PPSU Radel® WM

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Westlake's Radel® WM stock shapes are made exclusively from Solvay's Radel® polyphenylsulfone (PPSU). Radel WM offers exceptional hydrolytic stability, toughness, and superior impact strength over a wide temperature range. Its regulatory compliance profile and lot traceability make it ideal for use in medical and life science applications. Sterilization methods include EtO gas, radiation, steam autoclaving, dry heat and cold sterilization.



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

Applications Include:

- Provisional Trials
- Instrument Handles

Manufacturing Capabilities:



Colors:



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			
Flexural Modulus	psi	ASTM D790	350,000
Flexural Strength	psi	ASTM D790	13,200
Izod Impact			
Notched @73°F	ft•lbs/in	ASTM D256	13.0
Un-Notched	ft•lbs/in	ASTM D256	No Break
Tensile Elongation			
@break	%	ASTM D638	60.0-120.0
@yield	%	ASTM D638	7.2
Tensile Impact	ft•lbs/in ²	ASTM D1822	190
Tensile Modulus	psi	ASTM D638	340,000
Tensile Strength @yield	psi	ASTM D638	10,100
Thermal			
Coefficient of Thermal Expansion	in/in/°F	ASTM D696	3.1x10 ⁻⁵
Flammability Rating @0.031"	—	UL94	V-0
Heat Deflection Temperature			
@66 psi	°F	ASTM D648	417
@264 psi	°F	ASTM D648	405
Thermal Conductivity	(BTU•in)/(hr•ft ² •°F)	ASTM E1530	2.08
Other			
Steam sterilization cycles passed without cracking*, crazing or rupture:			>1,000
Water Absorption @24hours	%	ASTM D570	0.37
Specific Gravity	—	ASTM D792	1.29

* Steam autoclave conditions: temperature 270°F (132°C); time 30 minutes/cycle; steam pressure 27 psig (0.19 mPa); stress level 1,000 psi (7.0 mPa) in flexure; additive - Morpholine at 50 ppm.

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