Ajedium™ Films -- Radel® R-5100 NT15

Polyphenylsulfone

Solvay Specialty Polymers

Message:

Radel® polyphenylsulfone is an amorphous thermoplastic material that offers exceptional hydrolytic stability, and toughness superior to other commercially available, high-temperature flims.
PPSU films have high deflection temperatures and outstanding resistance to environmental stress cracking. The polymer is inherently flame retardant. The excellent thermal stability makes films suitable for applications where very low shrink at high temperatures are needed. PPSU films also have good electrical properties.
Radel® film is off-white in color.

General Information			
Features	High ESCR (Stress Cracking Resistance) Good electrical performance Thermal stability, good Good toughness Hydrolysis stability Flame retardancy		
Uses	Battery Electrical/Electronic Applications Aircraft applications Aerospace applications Application in Automobile Field Food service sector Medical/nursing supplies		
RoHS Compliance	RoHS compliance		
Appearance	White-like		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.30	g/cm³	ASTM D792
Water Absorption (24 hr)	0.37	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tear Resistance	8.1	cN	ASTM D1004
Tear Propagation Resistance	140	gf	ASTM D1922
Area coefficient	149	ft²/lb/mil	
Films	**Nominal Value**	**Unit**	**Test Method**
Film Thickness - Tested			
--	25	µm	
-- [1]	50	µm	
-- [2]	130	µm	
secant modulus			ASTM D882

MD	1590	MPa	ASTM D882
TD	1980	MPa	ASTM D882
Tensile Strength			ASTM D882
MD: Yield	68.0	MPa	ASTM D882
TD: Yield	59.0	MPa	ASTM D882
MD: Fracture	92.0	MPa	ASTM D882
TD: Fracture	70.0	MPa	ASTM D882
Tensile Elongation			ASTM D882
MD: Yield	9.2	%	ASTM D882
TD: Yield	6.8	%	ASTM D882
MD: Fracture	140	%	ASTM D882
TD: Fracture	100	%	ASTM D882
Dart Drop Impact	750	g	ASTM D1709B
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.18 mm)	207	°C	ASTM D648
Glass Transition Temperature	220	°C	ASTM E1356
CLTE - Flow (3.18 mm)	5.6E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	9.0E+15	ohms·cm	ASTM D257
Dielectric Strength (0.0250 mm)	190	kV/mm	ASTM D149
Dielectric Constant	3.45		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Oxygen Index	38	%	ASTM D2863

Additional Information

Standard Thicknesses and Widths
Widths are available from 22" (559 mm) to 56" (1422 mm).
Products with widths 56 inches are available upon request.
Tolerances for widths are +/- 4mm.
For PPSU film, the standard thicknesses are 25 microns (1 mil) to 1016 microns (40 mil).
Surface Finishes
Standard surface finish is P/M (polished / matte).
Custom finishes of P/P (polished / polished) and M/M (matte / matte) are available.
Packaging
Film is supplied in a roll form of high quality, cardboard core of 3" (76mm) or 6" (152mm).
PVC cores are available upon request in 3" and 6" sizes.
Labeling
Products are labeled to comply with national and international standards.
Labels include product grade, unique batch number, roll length, roll width, product thickness, and net weight.

NOTE	
1.	Impact Properties
2.	Tear Properties

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China