

## Solvay Specialty Polymers Ajedumâ„ç Films -- AvaSpireÂ® AV-630 Polyaryletherketone (PAEK)

Category : Polymer , Film , Thermoplastic , Polyketone

### Material Notes:

AvaSpireÂ® AV-630 PAEK film is a unique thermoplastic film that is characterized by a distinct combination of properties, which include strength, ductility, fatigue resistance, high purity and excellent chemical resistance to organics, acids, and bases. These properties make it well-suited for applications in aerospace, electronics, transportation, chemical processing, and other industrial uses. Features: Ductile; Fatigue Resistant; Flame Retardant; Good Chemical Resistance; Good Dimensional Stability; Good Impact Resistance; Good Sterilizability; High Heat Resistance; Radiation (Gamma) Resistant Uses: Aircraft Applications; Automotive Applications; Electrical/Electronic Applications; Industrial Applications; Medical/Healthcare Applications; Oil/Gas Applications Information provided by Solvay Specialty Polymers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Solvay-Specialty-Polymers-Ajedum-Films-AvaSpire-AV-630-Polyaryletherketone-PAEK.php](http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Ajedum-Films-AvaSpire-AV-630-Polyaryletherketone-PAEK.php)

Physical Properties	Metric	English	Comments
Density	1.30 g/cc	0.0470 lb/inÂ³	ASTM D792
Water Absorption	0.20 % @Time 86400 sec	0.20 % @Time 24.0 hour	ISO 62
Thickness	50.0 microns	1.97 mil	As Tested

Mechanical Properties	Metric	English	Comments
Film Tensile Strength at Yield, MD	71.7 MPa	10400 psi	ASTM D882
Film Tensile Strength at Yield, TD	68.9 MPa	9990 psi	ASTM D882
Film Elongation at Break, MD	130 %	130 %	ASTM D882
Film Elongation at Break, TD	130 %	130 %	ASTM D882
Film Elongation at Yield, MD	5.0 %	5.0 %	ASTM D882
Film Elongation at Yield, TD	5.0 %	5.0 %	ASTM D882
Secant Modulus, MD	2.04 GPa	296 ksi	ASTM D882
Secant Modulus, TD	2.00 GPa	290 ksi	ASTM D882
Dart Drop Test	830 g	1.83 lb	ASTM D1709
Film Tensile Strength at Break, MD	86.9 MPa	12600 psi	ASTM D882
Film Tensile Strength at Break, TD	83.4 MPa	12100 psi	ASTM D882

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	43.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	23.9 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	1
	@Temperature -50.0 - 50.0 $\text{Å}^\circ\text{C}$	@Temperature -58.0 - 122 $\text{Å}^\circ\text{F}$	
Thermal Conductivity	0.240 W/m-K	1.67 BTU-in/hr-ft $\text{Å}^2\cdot\text{Å}^\circ\text{F}$	ASTM C177
Melting Point	340 $\text{Å}^\circ\text{C}$	644 $\text{Å}^\circ\text{F}$	ASTM D3418
Glass Transition Temp, Tg	158 $\text{Å}^\circ\text{C}$	316 $\text{Å}^\circ\text{F}$	DSC
Oxygen Index	48 %	48 %	ASTM D2863

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.60e+14 ohm-cm	1.60e+14 ohm-cm	ASTM D257
Surface Resistance	$\geq 1.90\text{e}+17$ ohm	$\geq 1.90\text{e}+17$ ohm	ASTM D257
Dielectric Constant	3.05	3.05	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.06	3.06	
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	ASTM D150
Dielectric Strength	200 kV/mm	5080 kV/in	ASTM D149
	@Thickness 0.0500 mm	@Thickness 0.00197 in	

Descriptive Properties	Value	Comments
Availability	Asia Pacific	
	Europe	
	Latin America	
	North America	
Color	Translucent	
RoHS Compliance	RoHS Compliant	

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