

# Ajedium™ Films -- KetaSpire® KT-820

## polyetheretherketone

KetaSpire® KT-820 PEEK film is thermoplastic film that is characterized by a distinct combination of properties, which include excellent wear resistance, best-in-class fatigue resistance, high purity, and excellent chemical resistance to

organics, acids, and bases. These properties make it well-suited for applications in aerospace, electronics, chemical processing, healthcare, transportation, and other industrial uses.

### General

Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• Latin America • North America
Features	• Chemical Resistant • Ductile • Fatigue Resistant • Flame Retardant • 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
RoHS Compliance	• RoHS Compliant	
Appearance	• Translucent	

### Physical

	Typical Value	Unit	Test method
Density / Specific Gravity	1.30		ASTM D792
Water Absorption (24 hr)	0.50	%	ASTM D570

### Mechanical

	Typical Value	Unit	Test method
Tear Resistance (125.0 µm)	10.0	cN	ASTM D1004

### Films

	Typical Value	Unit	Test method
Film Thickness - Tested			
--	25	µm	
-- <sup>1</sup>	50	µm	
-- <sup>2</sup>	125	µm	
Secant Modulus			ASTM D882
MD : 25 µm	2050	MPa	
MD : 150 µm <sup>3</sup>	2680	MPa	
TD : 25 µm	2000	MPa	
TD : 150 µm <sup>3</sup>	2540	MPa	

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Films	Typical Value	Unit	Test method
Tensile Strength			ASTM D882
MD : Yield, 25 µm	75.8	MPa	
MD : Yield, 150 µm <sup>3</sup>	74.5	MPa	
TD : Yield, 25 µm	72.4	MPa	
TD : Yield, 150 µm <sup>3</sup>	71.7	MPa	
MD : Break, 25 µm	109	MPa	
MD : Break, 150 µm <sup>3</sup>	124	MPa	
TD : Break, 25 µm	95.8	MPa	
TD : Break, 150 µm <sup>3</sup>	123	MPa	
Tensile Elongation			ASTM D882
MD : Yield, 25 µm	6.8	%	
MD : Yield, 150 µm <sup>3</sup>	5.5	%	
TD : Yield, 25 µm	6.7	%	
TD : Yield, 150 µm <sup>3</sup>	5.4	%	
MD : Break, 25 µm	150	%	
MD : Break, 150 µm <sup>3</sup>	190	%	
TD : Break, 25 µm	170	%	
TD : Break, 150 µm <sup>3</sup>	210	%	
Dart Drop Impact (50 µm)	1300	g	ASTM D1709B
Area Factor	149	ft <sup>2</sup> /lb/mil	
Tear Propagation Resistance (125.0 µm)	320	gf	ASTM D1922
<b>Thermal</b>	<b>Typical Value</b>	<b>Unit</b>	<b>Test method</b>
Deflection Temperature Under Load <sup>4</sup>			ASTM D648
1.8 MPa, Annealed, 3.20 mm	157	°C	
Glass Transition Temperature	150	°C	ASTM D3418
Peak Melting Temperature	340	°C	ASTM D3418
CLTE - Flow (-50 to 50°C)	4.3E-5	cm/cm/°C	ASTM E831
Thermal Conductivity	0.24	W/m/K	ASTM E1530
<b>Electrical</b>	<b>Typical Value</b>	<b>Unit</b>	<b>Test method</b>
Surface Resistivity	> 1.9E+17	ohms	ASTM D257
Volume Resistivity	2.6E+16	ohms·cm	ASTM D257
Dielectric Strength (0.0500 mm)	150	kV/mm	ASTM D149
Dielectric Constant (1 kHz)	3.10		ASTM D150
<b>Flammability</b>	<b>Typical Value</b>	<b>Unit</b>	<b>Test method</b>
Oxygen Index	37	%	ASTM D2863

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### Additional Information

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#### Standard Thicknesses and Widths

- Widths are available from 22" (559 mm) to 56" (1422 mm).
- Products with widths <22 inches or >56 inches are available upon request.
- Tolerances for widths are +/- 4mm.
- For KetaSpire® film, the standard thicknesses are 8 microns (0.3 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.
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### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Impact properties

<sup>2</sup> Tear properties

<sup>3</sup> 51 mm/min

<sup>4</sup> 2 hours at 200°C



Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

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