Ajedium™ Films -- AvaSpire® AV-630
polyaryletherketone

AvaSpire® 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.

General

Material Status
• Commercial: Active

Availability
• Asia Pacific
• Europe
• Latin America
• North America

Features
• Chemical Resistant
• Ductile
• Fatigue Resistant
• Flame Retardant
• Good Dimensional Stability

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)  0.20 %  ASTM D570

Mechanical

Typical Value  Unit  Test method
Tear Resistance  9.0  cN  ASTM D1004

Film Thickness - Tested

Typical Value  Unit
--  50 µm
--  100 µm

Secant Modulus

MD  2040 MPa  ASTM D882
TD  2000 MPa

Tensile Strength

MD : Yield  71.7 MPa
TD : Yield  68.9 MPa
MD : Break  86.9 MPa
TD : Break  83.4 MPa

Tensile Elongation

MD : Yield  5.0 %
TD : Yield  5.0 %
MD : Break  130 %
TD : Break  130 %

Dart Drop Impact  830 g  ASTM D1709
### Ajedium™ Films -- AvaSpire® AV-630 polyaryletherketone

#### Films

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Value</th>
<th>Unit</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Factor</td>
<td>149</td>
<td>ft²/lb/mil</td>
<td></td>
</tr>
<tr>
<td>Tear Propagation Resistance</td>
<td>250</td>
<td>gf</td>
<td>ASTM D1922</td>
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</table>

#### Thermal

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Value</th>
<th>Unit</th>
<th>Test method</th>
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<tbody>
<tr>
<td>Glass Transition Temperature</td>
<td>158</td>
<td>°C</td>
<td>ASTM D3418</td>
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<tr>
<td>Peak Melting Temperature</td>
<td>340</td>
<td>°C</td>
<td>ASTM D3418</td>
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<tr>
<td>CLTE - Flow (-50 to 50°C)</td>
<td>4.3E-5</td>
<td>cm/cm/°C</td>
<td>ASTM E831</td>
</tr>
<tr>
<td>Thermal Conductivity</td>
<td>0.24</td>
<td>W/m/K</td>
<td>ASTM E1530</td>
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</table>

#### Electrical

<table>
<thead>
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<th>Property</th>
<th>Typical Value</th>
<th>Unit</th>
<th>Test method</th>
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</thead>
<tbody>
<tr>
<td>Surface Resistivity</td>
<td>&gt; 1.9E+17</td>
<td>ohms</td>
<td>ASTM D257</td>
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<tr>
<td>Volume Resistivity (0.0500 mm)</td>
<td>1.6E+14</td>
<td>ohms·cm</td>
<td>ASTM D257</td>
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<tr>
<td>Dielectric Strength (0.0500 mm)</td>
<td>200</td>
<td>kV/mm</td>
<td>ASTM D149</td>
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<tr>
<td>Dielectric Constant</td>
<td></td>
<td></td>
<td>ASTM D150</td>
</tr>
<tr>
<td></td>
<td>60 Hz</td>
<td>3.06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 kHz</td>
<td>3.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 MHz</td>
<td>3.05</td>
<td></td>
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<tr>
<td>Dielectric Strength (0.0500 mm)</td>
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#### Flammability

<table>
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<th>Property</th>
<th>Typical Value</th>
<th>Unit</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxygen Index</td>
<td>38</td>
<td>%</td>
<td>ASTM D2863</td>
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#### Additional Information

**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 PAEK film, the standard thicknesses are 12 microns (0.5 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.
Notes
Typical properties: these are not to be construed as specifications.

1 Tear properties

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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