Technical Data Sheet

**Product Description**

Oasis® 120TWT561 is a heat sealable composite film that is made using DuPont high strength polyimide film and DuPont fluoropolymer designed to meet the light weight wire requirements of AS22759/80-92. 120TWT561 film has a unique balance of excellent electrical, thermal durability, and chemical resistance properties, including improved hydrolytic stability, that make it ideal for the next generation of aerospace wire designs.

120TWT561 film possesses excellent bonding characteristics to itself and to other fluoropolymer-containing materials, while providing low adhesion to metal conductors. These unique bonding characteristics should provide a wide operating window for producing modern composite wire insulations.

This material can be processed on most taping machines designed to wrap polyimide based films around electrical conductors.

**Applications**

- **Aerospace Wire and Cable**
  - airframe wires
  - hookup wires
  - general purpose aircraft wires
- **Specialty Wires**
  - magnet wire
  - satellite wire

**Packaging**

Oasis® tapes are available in three different roll configurations: pad rolls, universal wound rolls and Step-Pac® rolls.

Additional product information, processing requirements and the safe handling of Oasis® can be found in Bulletin K-15349.
### Table 1
**Typical Properties of Oasis® 120TWT561 Film**

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Typical Value</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness</td>
<td>mil</td>
<td>1.2</td>
<td>ASTM D-374, Method D</td>
</tr>
<tr>
<td>Density</td>
<td>g/cc</td>
<td>1.78</td>
<td>ASTM D-1004-66-1981</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>kpsi</td>
<td>22.0</td>
<td>ASTM D-882-83, Method A</td>
</tr>
<tr>
<td>Tensile Modulus</td>
<td>kpsi</td>
<td>400</td>
<td>ASTM D-882-83, Method A</td>
</tr>
<tr>
<td>Elongation</td>
<td>%</td>
<td>60</td>
<td>ASTM D-882-83, Method A</td>
</tr>
<tr>
<td>Moisture Content</td>
<td>%</td>
<td>&lt;1.0</td>
<td>DuPont 5204</td>
</tr>
<tr>
<td>Heat Seal Strength at 350°C</td>
<td>g/cm</td>
<td>500</td>
<td>DuPont 5210</td>
</tr>
<tr>
<td>Seal Initiation Temperature</td>
<td>°C</td>
<td>280</td>
<td>DuPont 5210</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>V/mil</td>
<td>4500</td>
<td>ASTM D-149-81</td>
</tr>
<tr>
<td>Dissipation Factor at 1 kHz</td>
<td>–</td>
<td>0.010</td>
<td>ASTM D-150-81</td>
</tr>
<tr>
<td>Dielectric Constant at 1 kHz</td>
<td>–</td>
<td>2.85</td>
<td>ASTM D-150-81</td>
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<tr>
<td>Volume Resistivity</td>
<td>ohm-cm</td>
<td>10¹⁶</td>
<td>ASTM D-257-78 (1983)</td>
</tr>
<tr>
<td>Yield</td>
<td>ft²/lb</td>
<td>90.1</td>
<td>DuPont 5217</td>
</tr>
</tbody>
</table>

For more information on DuPont™ Kapton® or other High Performance Materials, please contact your local representative, or visit our website for additional regional contacts:

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