OVERVIEW

PACOTHANE® HT1500 is a High Temperature resistant release film specifically engineered for laminating rigid, flexible and specialty substrate Printed Circuit Boards. It is manufactured and converted in-house under stringent quality controls.

LAMINATION APPLICATIONS

• Rigid Multilayer Panels: to contain resin squeeze-out; to buffer and protect copper from damaged plates; to minimize stress effect from aluminum tooling plates; to reduce frequency of plate cleaning; to increase plate life; to prevent press pads from sticking to plates or bonding to tooling pins. (See lay-up recommendation)

• Flex, Rigid-flex Panels: to contain resin squeeze-out; to provide easy separation of conformal hydraulics and driver pads from PCB surfaces. (See lay-up recommendation)

FEATURES

• Contaminant free release from resins and separator plates
• Rated for Operating Temperatures up to 400°F (204°C) for up to 2 Hours
• Optimal thickness at 1.5 mils (38µm) for easy Handling (50% thicker than competitive release films)
• No embedded impurities
• Extremely low X&Y Axis shrinkage with reduced static potential
• Essentially inert: no out-gassing, no plate residue, no inter-laminar adhesion influence, and no vacuum system contamination
• Environmentally friendly: no Ozone depleting chemicals, no fluorine’s

PRODUCT INFORMATION BULLETIN

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RECOMMENDED LAMINATION LAY-UP

DESCRIPTION OF STANDARDS

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Test Method</th>
<th>Reported Units</th>
<th>Typical Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Application Temp.</td>
<td>Q 1025</td>
<td>°F (°C)</td>
<td>400(204)</td>
</tr>
<tr>
<td>Thickness</td>
<td>Q 3019</td>
<td>mil (µm)</td>
<td>1.50 (38.1)</td>
</tr>
<tr>
<td>Density</td>
<td>ASTM</td>
<td>g/cm³</td>
<td>0.94</td>
</tr>
<tr>
<td>Heat Shrinkage</td>
<td>MD Q-1045</td>
<td>%</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Heat Shrinkage</td>
<td>TD Q-1045</td>
<td>%</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Melting Temp.</td>
<td>ASTM E794</td>
<td>°F (°C)</td>
<td>495°F (257°C)</td>
</tr>
<tr>
<td>Appearance</td>
<td>White, Semi-translucent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tensile Strength (At yield point)</td>
<td>YP ASTM D882</td>
<td>Kg/cm²</td>
<td>230</td>
</tr>
<tr>
<td></td>
<td>Elong ASTM D882</td>
<td>%</td>
<td>410</td>
</tr>
<tr>
<td></td>
<td>YP ASTM D882</td>
<td>Kg/cm²</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>Elong ASTM D882</td>
<td>%</td>
<td>520</td>
</tr>
</tbody>
</table>
FOR LAMINATION OF RIGID MULTILAYER, FLEXIBLE CIRCUITS AND UNCLAD LAMINATES

AVAILABILITY

PACOTHANE® HT1500 RELEASE FILM is available in rolls or custom-made sheet sizes, tooled to customer specifications. The complete line of Pacothane Technologies products is available from leading local Distributors Worldwide who offer “Just in Time” delivery from locally-available stocks.

Also from Pacothane® Technologies:

- RELEASE PRODUCTS
  - PACOTHANE
  - PACO VIA
  - PACOLON
  - PACO CLUTCH

- PRESS PADS
  - PACOPADS
  - PACOTHERM
  - PRESSPROBE

- CONFORMABLES
  - PACOFLEX ULTRA
  - PACOFLEX 10000
  - PACOTHANE PLUS

- CONTAMINATION CONTROL
  - PACOGARD

- ULTRA HIGH TEMPERATURE
  - THERMofilm
  - THERMOPADS
  - THERMOLAM

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