



DUPONT™ PYRALUX® JT

HIGH TEMPERATURE COVERFILM AND BONDING MATERIAL

DESCRIPTION

DuPont™ Pyralux® JT is a coverfilm or bonding material that becomes a flexible thermoset after processing. It can be used as a coverfilm, offering good coverage over circuits, or as a bonding material for multilayer flex applications. It can be extended into the rigid section of rigid-flex applications to eliminate the need for bikini coat processing.

- Good adhesion to microetched shiny copper
- Low resin flow
- Excellent punching and drilling performance
- Excellent conformation over circuitry

CONSTRUCTION

DuPont™ Pyralux® JT coverfilm is supplied on a polyester carrier film in roll format. Rolls are available in 50 meter lengths. **Table 1** lists typical constructions.

Table 1 - DuPont™ Pyralux® JT Product Offering

Product Code*	Dielectric Thickness (µm)	Roll Width (mm)
Pyralux® JT50	50	610

Other roll widths are available by contacting your DuPont Technical Sales Representative.

SPECIFICATIONS

IPC-4203/25

RoHS compliant

Halogen Free

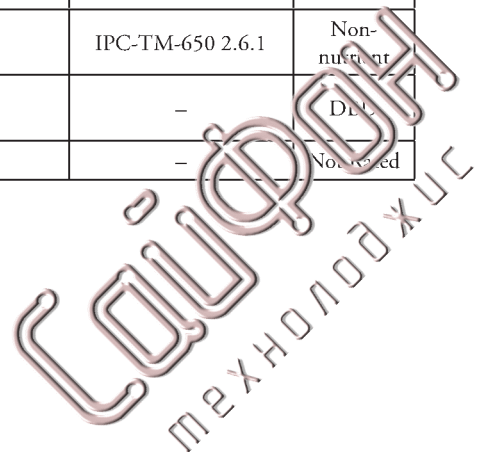
MATERIAL PROPERTIES

Typical material properties are listed in **Table 2**.

Table 2 - Pyralux® JT Properties vs IPC Specifications

Property	Test Method	JT50
Adhesion to copper (Peel Strength) Copper treated side After application, N/mm (lb/in)	IPC-TM-650 2.4.9	1.6 (9)
Copper microetched shiny side After application, N/mm (lb/in)		1.0 (6)
Permittivity At 1MHz At 10GHz	IPC-TM-650 2.5.5.3	3.2 – 3.6 2.9 – 3.3
Loss Tangent, maximum At 1MHz At 10GHz	IPC-TM-650 2.5.5.3	0.016 0.02
Dielectric Strength, minimum, V/µm	ASTM-D-149	150
Solder Float at 288°C (550°F) Microetched shiny copper	IPC-TM-650 2.4.13	Pass
Glass Transition Temperature (T _g), °C	DMA	180
Thermal Decomposition Temperature, °C	5% wt loss (TG-DTA)	350
Tensile Strength, MPa (kpsi)	DuPont Method	40 (5.8)
Modulus, MPa (kpsi)	DuPont Method	1400 (208)
Elongation, %	DuPont Method	30
Volume Resistivity, minimum, Ohm-cm	IPC-TM-650 2.5.17	1E13
Surface Resistivity, minimum, Ohm	IPC-TM-650 2.5.17	4E13
Moisture Absorption, %	IPC-TM-650 2.6.2	0.7
Flow, µm/µm	IPC-TM-650 2.3.17.1	3
Moisture and Insulation Resistance, Ohm	–	DBD
Fungus Resistance	IPC-TM-650 2.6.1	Non-nutrient
IPC Service Temperature, maximum, °C	–	DBD
Flammability	–	Not tested

DBD: Data Being Developed





DUPONT™ PYRALUX® JT

PROCESSING

DuPont™ Pyralux® JT processing is not unlike processing conventional coverlay and bondply. It is recommended that the user consult the Pyralux® JT Processing Guide obtainable from your DuPont Technical Representative.

STORAGE CONDITIONS AND WARRANTY

Pyralux® JT should be stored in refrigerated conditions of 0-10°C (32-50°F). The shelf-life of Pyralux® JT is 4 months from date of receipt when stored as recommended. Once Pyralux® JT has been sheeted from the roll, the shelf-life at room temperature is 72 hours. This period can be extended if the sheets are placed back in refrigerated storage after punching or drilling. Subject to compliance with the foregoing handling and storage conditions, the DuPont warranty, as provided in the DuPont Standard Conditions of Sale, shall remain in effect for a period of 4 months following the date of receipt.

SAFE HANDLING

Pyralux® JT coverfilm and bonding material is a B-staged material containing 0.5 to 2% n-methyl-2-pyrrolidone and therefore precautions should be taken to minimize contact. For additional information refer to the product Article Information Sheet.

DuPont is not aware of anyone developing contact dermatitis, or suffering any other medical discomforts, when using Pyralux® JT.

To eliminate contact between the skin and exposed, unprocessed Pyralux® JT, wear latex, neoprene or butyl rubber gloves or fingerpads. Anyone handling Pyralux® JT should wash his or her hands with soap and water before eating, smoking, or using restroom facilities. Gloves and fingerpads should be changed daily, and wash other protective clothing frequently.

Adequate ventilation and exhaust are recommended in lamination press rooms to prevent the buildup of potentially harmful vapors, to remove disagreeable odors, and to dissipate heat. Drill rooms should be furnished with standard equipment recommended by drill vendors and required by OSHA standards.

For further information on safe handling, refer to the Pyralux® JT Processing Guide and refer to “Industrial Ventilation,” 18th Edition of latest available from the American Conference of Governmental Industrial Hygienists, 6500 Glenway, Building D-5, Cincinnati, OH 45211.

WASTE DISPOSAL

Dispose of in accordance with local regulations.

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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see “DuPont Medical Caution Statement,” N-50402-5

K-28005-2 10/14

