

## PRODUCT INFORMATION BULLETIN

**FOR LAMINATION OF  
RIGID MULTILAYER,  
FLEXIBLE CIRCUITS AND  
UNCLAD LAMINATES**



**PACOTHANE® HT1500**

### 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.

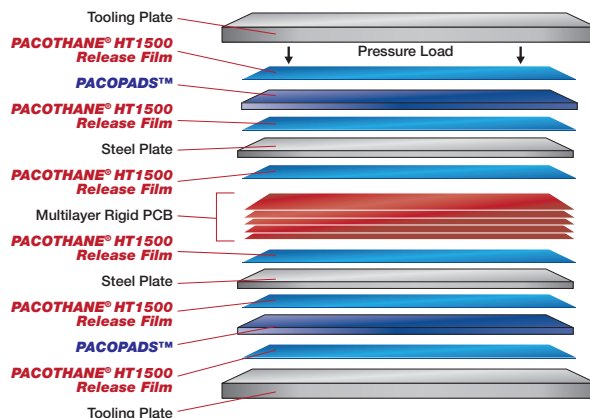
### LAMINATION APPLICATIONS

- **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

- Contaminate 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

### RECOMMENDED LAMINATION LAY-UP



### DESCRIPTION OF STANDARDS

Physical Property	Test Method	Reported Units	Typical Values		
Max. Application Temp.	Q 1025	°F (°C)	400(204)		
Thickness	Q 3019	mil (µm)	1.50 (38.1)		
Density	ASTM	g/cm <sup>3</sup>	0.94		
Heat Shrinkage	MD TD	Q-1045	%		
			<5%		
Melting Temp.	ASTM E794	°F (°C)	495°F (257°C)		
Appearance	White, Semi-translucent				
Tensile Strength (At yeild point)	MD	YP	ASTM D882	Kg/cm <sup>2</sup>	230
		Elong	ASTM D882	%	410
	TD	YP	ASTM D882	Kg/cm <sup>2</sup>	190
		Elong	ASTM D882	%	520



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## 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



### PRESS PADS



### CONFORMABLES



### CONTAMINATION CONTROL



### ULTRA HIGH TEMPERATURE



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