

# Cleanroom 1 Label

## Thermal Transfer PMA4650B

# DATA SHEET

### Description

PMA4650B is a non-silicone thermal transfer cleanroom label which comes with semi-gloss white BOPP based synthetic film. A special resin top coat provides excellent chemical resistance and good thermal transfer printing image with most resin & combination ribbons, surface treated for better ink writing or printing. This product exhibits ultra-low ionic extraction level and durable performance in micro-electronic cleanroom application.

### Physical Properties

Label Composition	BOPP
Film Thickness	2.8 mil $\pm$ 10%
Adhesive Composition	Low outgassing Acrylic-based
Adhesive Thickness	0.9 mil - 1.0 mil $\pm$ 0.1
Avg. Peel Adhesive (72 hour dwell)	30 - 50 oz/in
Release Liner	Non-silicone coated Polyester
Release Liner Thickness	1.5 mil $\pm$ 5%
Release Force	15 - 35 grams
Min. Application Temp.	59°F (15°C)
Service Temp.	23°F to 158°F (-5°C to 70°C)
Storage Stability	Two years stored at 70°F (21°C) and 50% RH
Packaging	Cleaned and double bagged in Class 10 cleanroom. Wound in 3" OR 1" cleaned PE core



### Cleanliness Properties

Extractable Silicone (FTIR) - Adhesive side - Release side	Not Detectable Not Detectable
Total outgassing (GCMS)	$\leq$ 10,000 ng/ cm <sup>2</sup>
Ionic Extractable Label (IC) - Total Anion	$\leq$ 0.08 $\mu$ g/cm <sup>2</sup>

### Adhesive Application Guide

Polycarbonate •	ABS •	Cleanroom Paper
Polyester •	Rubber	Carton Box
Polyethylene •	Glass •	
Polypropylene •	Metal •	