



Technical Data Sheet

TT423

THERMAL TRANSFER GLOSSY WHITE POLYIMIDE FILM

GENERAL DESCRIPTION:

TT423 is a topcoated glossy white polyimide film. It is coated with an aggressive permanent acrylic adhesive and backed with a 55# Glassine release liner.

USES:

Ideal for marking electronic components, and the top/bottom side of printed circuit boards. This material is designed to withstand high temperatures and harsh chemicals. Withstands through-hole and surface mount circuit board processes. Ideal material for industrial bar code applications requiring durability. This high-performance material is designed for applications requiring excellent solvent and scratch resistance. Can withstand higher temperatures for a longer amount of time than TT421. TT423 can be used on curved surfaces due to the material being only 1 mil thick. **This material is specially designed for use in higher heat required for PB free solders.**

FEATURES:

Indoor only. Excellent scratch, abrasion, chemical, and heat resistant when printed with a thermal transfer resin-based ribbons. This film is dimensionally stable (no shrinkage), high-performance adhesive. Pre-heating of the material and ribbon will enhance the performance. Meets MIL-STD-202F and MIL-STD-883E when printed with the TTRR-C, TTRR-N, TTRR-J and TTRR-G. Meets MIL-STD-883E only when printed with the TTRR-D and TTRR-S ribbon. This material has insulative properties in the material and adhesive. This material is specially designed for ultra solvent and heat resistances. . Clear polyester liner specially designed for auto apply applications. UL recognized with the TTRR-D, TTRR-J, TTRR-S and TTRR-C ribbons.

RECOGNITION(S):

UL-MH16873 RoHS Directive 2002/95/EC Compliant

RECOMMENDED RIBBON:

TTRR-B, TTRR-C, TTRR-D, TTRR-J, TTRR-N, TTRR-S and TTRR-V

PHYSICAL PROPERTIES

TEST METHODS	CONVENTIONAL UNITS	S.I. UNITS
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THICKNESS:

Film	1.5 mils	38.1 microns
Adhesive	1.0 mils	25.4 microns
Liner (55#)	3.1 mils	78.7 microns
Total	5.6 mils	142.2 microns

ADHESIVE PERFORMANCE

	Stainless Steel	
20 minute dwell	22 oz/in	250 N/m
24 hour dwell	33 oz/in	360 N/m
	Epoxy Panel	
20 minute dwell	22 oz/in	470 N/m
24 hour dwell	38 oz/in	410 N/m

WARRANTY

"Our products are sold with the understanding that the buyer will test them in actual use and determine for himself their adaptability to his intended uses. We warrant to the buyer that our products are free from defects in material and workmanship. This warranty is in lieu of any other warranty, expressed or implied"

SERVICE TEMPERATURES: Lab tested using stationary standard ovens (Epoxy boards catch on fire before 1 minute failure.)

Epoxy Board	Stainless Steel	Temperatures	
Less than 60 seconds	1-5 Minutes	572°F	300°C
1-18 Seconds	10-58 Seconds	842°F	450°C
1-5 Seconds	3-6 Seconds	1000°F	538°C

Additional test on steel panel in stationary laboratory over 50 minutes at 316°C (600°F) and there were no visible signs of browning

***** CUSTOMER TO TEST IN ACTUAL APPLICATION TO DETERMINEE IF MATERIAL MEETS CUSTOMER REQUIREMENTS *****

MINIMUM APPLICATION TEMPERATURE: 50°F 10°C

EXTERIOR DURABILITY: Indoor Only

CHEMICAL RESISTANCES:

MIL-STD-202F, Notice 12, Method 215J	Meets this military spec with our TTRR-C, J and N
MIL-STD-883E, Notice 4, Method 2015.13	Meets this military spec with our TTRR-C, N and S

CHEMICAL RESISTANCES:

TEST ENVIRONMENT:	PCS	READ RATE
Control 316°C heat, 50 minutes	99%	100%
Alpha Metals Inc.2110 Saponifier, 6% aqueous, 65-70°C, 10 minutes	97%	100%
Isopropanol 99%, 82°C, 10 minutes	99%	100%
Deionized Water, 100°C, 10 minutes	99%	100%

STORAGE STABILITY: Product should be stored at 80°F (27°C) and 60% relative humidity to ensure optimal performance.

SHELF LIFE: 1 year @ proper storage conditions.