



Thermalmark Labels

ONSITE PRINTABLE LABELS

Metalcraft's Thermalmark Polyester Labels offer the durability of a pre-printed label with the flexibility to custom print information on-site as needed. The thermal transfer receptive topcoat of the Thermalmark allows labels to be easily customized with different text, barcodes or serial numbers printed through a thermal transfer printer.

Material and Design Specifications

- 0.002" (0.051 mm) polyester material
- Overall dimensions - various sizes available
- 0.001" (0.0254 mm) thick adhesive provides excellent adhesion to low and high surface energy materials
- Thermal transfer topcoat with 0.002" (0.051 mm) thick polyester and 0.004" (0.08 mm) liner
- Serialized/unserialized numbers and barcodes with human readable numbers

Technical Specifications

- All logos are digitally printed.

Key Features

- Thin, durable construction materials make it easy to use in most desktop thermal transfer printers
- Thermal transfer receptive topcoat allows for easy on-site label customization and printing
- Durable 0.002" polyester material easily conforms to uneven or radius surfaces
- 0.001" thick adhesive provides excellent adhesion to low and high surface energy materials

Applications

- Asset Tracking
- Warranty Control
- Security/Anti-theft

Environmental Specifications

- Minimum Application Temperature: +50 °F (10 °C)
- Service Temperature Range: -40 °F (-40 °C) to +302 °F (150 °C)
- UV Resistance: Up to 5 years of resistance outdoors
- Chemical Resistance: Excellent resistance to strong acids and alkaline solutions. Very good resistance to flammable and combustible solvents and a wide variety of cleaning solutions. Avoid exposure to acetone.

Test Results

These tests were conducted for a limited period in strict laboratory conditions. To achieve maximum satisfaction, we highly recommend any customer considering use of this product test the labels in the environment in which they will be used.

Destructive Test Summary: Results below show before and after abrasion on the thermal transferred printed image using full resin ribbons. Samples with TT printed black bars subject to 20 revolutions with CS-10 wheels 500 grams per wheel on Taber 5130.

K Density before	K Density after	% change
1.79	1.54	13.97

Chemical Test Summary: Labels were applied to a clean glass substrate and submerged in the following chemicals for 2, 24 and 48 hours. Focus was on the thermal transfer printed image as well as the condition of the label construction. Results were identical for both 170XIII+ and Gx430t printers using full resin ribbons.

Chemical Test Data	Water	Glass Cleaner	Bathroom Cleaner	Isopropyl Alcohol	Acetone	NaOH pH 12	HN03 pH 12	HCl pH 12	Brake Fluid	Diesel Fuel
Thermal Transfer Rub Test	NE	BC Wiped Off After 48 Hours	NE	BC Wiped Off After 2 Hours	BC Wiped Off After 2 Hours	NE	NE	NE	BC Wiped Off After 2 Hours	NE
Label Construction	NE	AL After 48 Hours	NE	AL After 24 Hours, TD after 48 Hours	AL After 24 Hours, TD after 48 Hours	NE	NE	NE	NE	AO After 2 Hours

Key: NE - No Effect, AO - Adhesive Ooze, AL - Loss of Adhesion to Glass Panel, TD - Tag Delamination, BC - Barcode

Temperature Test Summary: Labels were applied to .020" aluminum panels and heated to the temperatures listed below for 15 minutes.

Product	200 °F	300 °F	400 °F	500 °F
Thermalmark	NE	NE	NE	LC, LF

Key: NE - No Effect, LC - Label Cracked/Blistered, LF - Label Face Distorted

Installation Instructions

1. Clean the surface using Isopropyl alcohol, alcohol pad or equivalent solvent to ensure surface is free from dirt, dust, oil and misc. debris that may affect adhesion.
2. Handle the tag by edges, peel release liner from back ensuring not to touch the adhesive.
3. Place the tag in desired tagging location and firmly apply even pressure to the tag for 5 seconds.
4. Do not disturb the newly mounted tag for at least 72 hours to ensure proper adhesive sealing.

Industry Compliance

