

Z-Supreme™ 4000T White

Media Type	Label	✓	Film Type	Polyethylene	
	Receipt			Polyolefin	
	Tag			Polypropylene	
	Wristband			Polyester	
Material Type	Paper			Polyimide	✓
	Synthetic	✓	Properties	Cold Temperature	✓
Printing Technology	Direct Thermal (no Ribbon Required)			Deep Freeze	✓
	Thermal Transfer (Ribbon Required)	✓		High Temperature	✓
Adhesive Type	Permanent	✓		Ultra High Temperature	✓
	Removable			High Tack	
	No Adhesive			Chemical Resistance	Extreme
Finish	Matte		Environment	Indoor	✓
	Gloss	✓		Outdoor	

Additional Features

- Specifically designed for high temperature and harsh environment applications
- Offers resistance to temperatures as high as 575°C (short term exposure)
- Excellent ANSI barcode print quality
- Excellent Crockmeter durability – 500 rubs, no print degradation
- Suitable to run through printed circuit board (PCB) manufacturing process
- UL approved for electronic equipment, as a label which will last as long as the product

Suggested Applications

- PCB applications; top and bottom side labelling
- Electronic and component labelling
- High temperature industrial manufacturing

Technical Specifications

	Description	Caliper
Facestock	Gloss white coated polyimide film	68 microns
Adhesive	Permanent high-performance acrylic adhesive	50 microns
Liner	80gsm white kraft paper liner	79 microns
	Total	197 microns ±10%

Recommended Zebra Printers: Mid-range and high-performance thermal printers

Recommended Zebra Ribbons: 5095, 5100

Minimum Application Temperature: 10°C
When the label is applied, the environment and surface should be above this temperature

Service Temperature Range: -40°C to 537°C (Short term)
Following correct application and appropriate dwell time (usually 24hrs) the media will withstand this temperature range

Recommended Storage Conditions: 1 year duration when stored at 26°C at 60% RH
Storage of product before use

Expected Life Span in Application: Indoor use, 1 year+
Following correct application and appropriate dwell time (usually 24hrs) we expect, but do not warrant, a life span as indicated

High Temperature Testing: Barcode printed labels applied to aluminium panels and tested in muffle furnace. Five minute adhesive dwell time before heat exposure.
Result: ANSI grade B recorded before and after exposure. No visible degradation of printed barcode or facestock.

Maximum Heat Resistance

Temperature	Duration
575°C (1067°F)	30 seconds
500°C (932°F)	60 seconds
375°C (707°F)	5 minutes
325°C (617°F)	30 minutes
275°C (527°F)	60 minutes

Solvent Resistance Testing

Test 1.

Media: Z-Supreme 4000T White
 Ribbon: Zebra 5100

Test Method:

- Apply printed samples to stainless steel panels.
- Place panels through: 10 minutes immersed in solvent, 30 minutes rest.
- Rub with standard cloth when wet after immersion.
- Rub with standard cloth when dry after immersion

Test Results:

Solvent	Wet	Dry
IPA (Isopropyl Alcohol)	No effect	No effect
Oil (10W-40)	No effect	No effect
Toluene	Ribbon and coating rub off after one cycle	No effect
Water	No effect	No effect
Heptane	Some rub off after three cycles	No effect
Unleaded Petrol	Ribbon rub off after three cycles	Coating appears slightly degraded; barcode shows no substantial effect
Windex	Some ribbon/coating rub off after two cycles	No effect
MEK (Methyl Ethyl Ketone)	Ribbon and coating rub off after one cycle	No effect

Test 2.

Media: Z-Supreme 4000T White
Ribbon: Zebra 5100

Test Method:

- Media printed with 5 mil narrow barcode 39 using Zebra 5100 ribbon.
- Passed through Zebra In-house Wave Solder process; standard 67/33 solder and no clean flux. Pre heat zone temperature set at 800°F (427°C) (2 feet).
- Wave solder temperature set at 500°F (260°C) ± 10°F at line speed of 4ft/minute.

Test Result:

Print image resists smearing after exposure to wave solder process.

Product Performance and Suitability

The information contained in this document is to be used for guidance only and is not intended for use in setting specifications. All purchasers of Zebra products shall be solely responsible for independently determining if the product conforms to all requirements of their unique application.

For testing of this material please order sample roll SAMPLE5392.