



# Z-Ultimate 4100T

## Polyester label with a high-performance permanent acrylic adhesive

Premium gloss thermal transfer polyester label with a high-performance permanent acrylic adhesive. Ideal for applications requiring up to 3 years outdoors, resistance to moderate chemicals and temperature exposure up to 300°F. The Z-Ultimate 4100T label can withstand a wide range of temperatures, making it suitable for both cold storage and high-heat applications. This broad temperature range enhances its versatility.

This thermal transfer polyester label is suitable for a wide range of applications, including asset tracking, top-side PCB labeling, product identification and inventory management. Its durability makes it particularly useful in manufacturing, automotive and pharmaceutical industries. Moreover, the Z-Ultimate 4100T complies with FDA 175.105 regulations for indirect food contact, making it suitable for application on shrink wrap and other food packaging.



### Print Confident. Print Quality. Print Zebra.

Printing supplies can impact everything from printhead lifespan to operational efficiency. That's why we design, produce and rigorously pre-test our own line of thermal printing supplies to ensure consistent, optimized performance. We utilize an ISO 9001 certified, 23-point inspection process and consistent materials to ensure reliable performance from order-to-order. No matter when you order your labels, you can count on the same consistent performance.

### Unparalleled smear and scratch, moderate chemical and high-heat resistant

Z-Ultimate 4100T labels, when paired with Zebra's 6200, 5100 or 5095 ribbons, offer excellent adhesive quality and print durability to smearing and scratching, ensuring your assets remain identifiable throughout their useful life. The label will remain readable and intact when subjected to moderate chemicals, such as alcohol, ammonia, IPA and bleach, making it the perfect choice for identifying assets that will require cleaning and disinfecting with chemicals, such as medical devices and food preparation equipment.

### UL certified labeling solution

Z-Ultimate 4100T labels combined with Zebra's 5100 and 5095 have been fully tested and certified by UL to the UL 969 standard. In addition, Zebra supplied manufacturing plants are authorized to pre-print the UL mark, your application and process. In addition, our flexographic print presses can add pre-printed text, graphics and color.

### Customization Available

Zebra can deliver Z-Ultimate 4100T labels in just about any size, shape or label set configuration to meet the requirements of your application and process. In addition, our flexographic print presses can add pre-printed text, graphics and color.

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For more information, visit [www.zebra.com/supplies](http://www.zebra.com/supplies)

# Specifications

Material Construction	
RM Number	10035970RM
Facestock	White coated polyester; 2.0 mils
Adhesive	Permanent Acrylic Adhesive; 0.8 mils
Liner	50 lb. semi-bleached kraft stock with PCR content; 3.0 mils
Total thickness +/- 10%	5.8 mil ± 10
Environment	Indoor use; Outdoor use up to 3 years
Temperature Performance	
Minimum Application Temperature <sup>1</sup>	50°F / 10°C
Service Temperature Range <sup>2</sup>	-40°F to 302°F/-40°C to 150°C
Recommended Printers and Settings	
Printers	Thermal transfer printer (ribbon required); use Zebra desktop, mid-range and high-performance thermal printers for optimal performance
Ribbons	Compatible with Zebra 6200, 5095 and 5100 resin ribbons for optimal performance
Adhesive Strength	
Stainless Steel	5 minute dwell time: 52 oz/in. 24 hour dwell time: 62 oz/in.
Polycarbonate	5 minute dwell time: 38 oz/in. 24 hour dwell time: 46 oz/in.
Polyethylene	5 minute dwell time: 4 oz/in. 24 hour dwell time: 7 oz/in.
Chemical Resistance	
Weak chemicals	
Blood	6200, 5095 & 5100: Recommended
Body Fluid	6200, 5095 & 5100: Recommended
Salt Water	6200, 5095 & 5100: Recommended
Water	6200, 5095 & 5100: Recommended
Window Cleaner	6200, 5095 & 5100: Recommended
Moderate chemicals	
Alcohol	6200, 5095 & 5100: Recommended
Ammonia	6200, 5095 & 5100: Recommended
Bleach	6200, 5095 & 5100: Recommended
IPA	6200, 5095 & 5100: Recommended
Harsh chemicals	
Gasoline	6200, 5095 & 5100: Test in your application
Grease	6200, 5095 & 5100: Test in your application
Oil	6200, 5095 & 5100: Test in your application

Extreme Chemicals	
Acetone	Not Recommended
IR Reflow	Not Recommended
MEK	Not Recommended
TCE	Not Recommended
Xylene	Not Recommended

### Regulatory and Compliance

FDA 175.105 for indirect contact with dry foodstuffs, or alternatively separated by a functional barrier.  
BPA and latex free

### Product Performance and Suitability

Recommended storage conditions	72°F / 22°C at 50% RH
Expected life span in application <sup>3</sup>	Indoor and outdoor up to 3 years
Sample Part Number	SAM10035970

### Footnotes

1. When the label is applied, the environment and surface should be above this temperature.
2. Following correct application and appropriate dwell time (usually 24 hrs) the media will withstand this temperature range.
3. Following correct application and appropriate dwell time (usually 24 hrs) we expect, but do not warrant, a life span as indicated.

\* Specifications are subject to change without notice.

## Markets and Applications

### Manufacturing

- Top-side PCB labeling
- Product identification
- Automotive part labeling
- UL product labeling



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