

## Z-Band® Direct



Available  
from stock  
on ZipShip

<b>Media Type</b>	Label		<b>Adhesive Type</b>	Permanent	✓
	Receipt			Removable	
	Tag			No Adhesive	
	Wristband	✓		<b>Environment</b>	Indoor
<b>Material Type</b>	Paper		Outdoor		✓
	Synthetic	✓	<b>Properties</b>	Cold Temperature	✓
<b>Printing Technology</b>	Direct Thermal (no Ribbon Required)	✓		Deep Freeze	✓
	Thermal Transfer (Ribbon Required)			High Tack	
<b>Finish</b>	Matte			Chemical Resistance	<b>Mild</b>
	Gloss	✓	<b>Suggested Vertical</b>	Healthcare	✓
				Hospitality	

### Additional Features

- No ribbon required for direct thermal printing, therefore only one stock item needed
- Quick and easy to print and secure, with peel and seal tab closure
- Tamper evident slits and high performance permanent rubber adhesive means bands cannot be removed and reapplied
- Excellent print quality down to 5mil narrow barcodes
- Latex free, BPA free and waterproof
- Resistant to smearing, abrasion, alcohol, mild cleansers, hand sanitiser gels and other substances typically found in hospitals
- Designed with a patented antimicrobial coating which test results show, prevents the growth and survival of Methicillin-resistant Staphylococcus aureus (MRSA) Type II, Type III and Type IV in addition to S. aureus, P. aeruginosa and E. coli. Patent no. US9,114,187.
- Meets healthcare patient identification and safety requirements, removes risk of data left on ribbons and helps to prevent medication and blood transfusion errors (HIPAA)
- “MR-Safe” an item that poses no known hazards in all MRI environments



### Suggested Applications

- Safe, secure, positive patient ID for hospitals
- Event admissions
- Water parks, theme parks and resorts
- Cash free transactions

## Technical Specifications

	Description	Caliper
<b>Facestock</b>	Gloss thermal imaging polypropylene	152.4 microns ± 10%
<b>Adhesive Tab</b>	Permanent rubber adhesive on kraft liner	90 microns ± 10%

**Recommended Zebra Printers:**

HC100, desktop, mid-range and high performance thermal printers capable of handling 25mm wide media

**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 60°C

Following correct application and appropriate dwell time (usually 24hrs) the media will withstand this temperature range

**Recommended Storage Conditions:**

6 months duration when stored at 22° at 50% RH

Storage of product before use

**Expected Life Span in Application:**

Indoor use and outdoor use, short term only  
Please test in application

Following correct application and appropriate dwell time (usually 24hrs) we expect, but do not warrant, a life span as indicated

**Recommended Darkness and Print Speed Settings:**

ZPL Printers; Darkness: 22 Print Speed: 50mm/sec (2ips)  
EPL Printers; Darkness: 13 Print Speed: 50mm/sec (2ips)  
Printer settings automatically programmed in Zebra HC100 printer at 102mm/sec (2ips)

## Expected Chemical Resistance

	Weak					Moderate				Harsh			Extreme				
	Blood	Body Fluid	Salt Water	Water	Window Cleaner	Alcohol	Ammonia	Bleach	IPA	Gasoline	Grease	Oil	Acetone	IR Reflow	MEK	TCE	Xylene
DT	✓	✓	✓	✓		✓			✓								

“✓” indicates acceptable chemical resistance

### Z-Band Direct Performance and Durability

The image durability of a 5 mil narrow-bar 16 digit Code 128 barcode printed on a Zebra wristband at Zebra’s recommended darkness and speed settings was measured by scanning with an MS 1690 Focus Area Imaging Bar Code Scanner after exposure to solvents, abrasion and water. For each test performed, a “Pass” or “Fail” was noted.

Pass= Immediate scan of barcode without repeated attempts

Fail= Failure of barcode to scan or required repeated attempts to scan

Test	Outcome
<b>Abrasion Test</b>	Pass: Exceeds 1000x with a dry crocking cloth
<b>Water</b>	Pass: Withstands total immersion in 40°C water for up to 6 hours
<b>91% IPA</b>	Pass: Withstands 50x rubs with soaked cotton applicator
<b>70% IPA</b>	Pass: Withstands 50x rubs with soaked cotton applicator
<b>Betadine</b>	Pass: Withstands 100x rubs with soaked cotton applicator
<b>Purell</b>	Pass: Withstands 50x rubs with soaked cotton applicator
<b>Tensile strength</b>	Pass: Withstands up to 45 pounds of force

For details of durability testing and information regarding Zebra’s patent-pending anti-microbial feature, please visit [www.zebra.com](http://www.zebra.com) or contact your Supplies Specialist Representative.

### Z-Band Skin Irritation Testing

Independent laboratory test for skin irritability were conducted by Toxicant Corporation, 15 Wiggins Ave. Bedford, MA 01730, USA.

#### Test method

The test articles received a topical 4-hour application of the USP 0.9% Sodium Chloride for Injection (Nalco) and Cottonseed Oil (CSO) extracts of the Z-Band materials. After 72 hours, there were no signs of erythema or edema.

Z-Band wristbands were tested to FDA 21CFR, Part 58, referencing:

- ISO 10993-10, 2002, Biological Evaluation of Medical Devices—Part 10: Tests for Irritation and Delayed-Type Hypersensitivity
- ISO 10993-12, 2002, Biological Evaluation of Medical Devices—Part 12: Sample Preparation and Reference Materials
- ISO/IEC 17025, 2005, General Requirements for the Competence of Testing and Calibration Laboratories



Z-Band wristbands are not likely to cause dermal irritation and are considered a negligible irritant, according to Toxikon Corporation.

### **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 product, please contact your Supplies or Healthcare Specialist Representative.