# Z-Band® UltraSoft

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Label</th>
<th>Receipt</th>
<th>Tag</th>
<th>Wristband</th>
<th>Permanent</th>
<th>Removable</th>
<th>No Adhesive</th>
<th>Indoor</th>
<th>Outdoor</th>
<th>Cold Temperature</th>
<th>Deep Freeze</th>
<th>High Tack</th>
<th>Chemical Resistance</th>
<th>Mild</th>
<th>Healthcare</th>
<th>Hospitality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Type</td>
<td>Paper</td>
<td>Synthetic</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>Printing Technology</td>
<td>Direct Thermal (no Ribbon Required)</td>
<td>✓</td>
<td></td>
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<tr>
<td></td>
<td>Thermal Transfer (Ribbon Required)</td>
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</tr>
<tr>
<td>Finish</td>
<td>Matte</td>
<td>Gloss</td>
<td>✓</td>
<td>✓</td>
<td></td>
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</tbody>
</table>

## Additional Features
- The softest direct thermal printable wristband on the market
- Specially designed to be ultra-soft and comfortable for patients with delicate skin
- 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 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
- Identification of patients with delicate skin
## Technical Specifications

<table>
<thead>
<tr>
<th>Description</th>
<th>Caliper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facestock</td>
<td>Gloss white thermal imaging polypropylene</td>
</tr>
<tr>
<td>Adhesive Tab</td>
<td>Permanent rubber adhesive on kraft liner</td>
</tr>
</tbody>
</table>

### Recommended Zebra Printers:
HC100, desktop, ZT200 Series and ZT410 thermal printers with the use of a 25mm media holder

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

N/A

### Service Temperature Range:
Following correct application and appropriate dwell time (usually 24hrs) the media will withstand this temperature range

-40°C to 60°C

### Recommended Storage Conditions:
Storage of product before use

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

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

Indoor use, short term only

Please test in application

### 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

<table>
<thead>
<tr>
<th>Blood</th>
<th>Body Fluid</th>
<th>Salt Water</th>
<th>Water</th>
<th>Window Cleaner</th>
<th>Alcohol</th>
<th>Ammonia</th>
<th>Bleach</th>
<th>IPA</th>
<th>Gasoline</th>
<th>Grease</th>
<th>Oil</th>
<th>Acetone</th>
<th>IR Reflow</th>
<th>MEK</th>
<th>TCE</th>
<th>Xylene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✔</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
</tbody>
</table>

“✓” indicates acceptable chemical resistance
Z-Band UltraSoft 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

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

For details of durability testing and information regarding Zebra's patent-pending anti-microbial feature, please visit 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

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.