



Laboratory Labeling Solutions

Keep your operations running smoothly with exceptional labeling solutions

Laboratory labeling solutions significantly impact the quality of care healthcare providers give patients. According to a study of 120 healthcare institutions, nearly 56% of identification errors in the lab were caused by specimen labeling errors¹. High-quality laboratory labeling solutions facilitate accurate diagnoses and proper treatments for the correct patients. But ineffective laboratory labels can cause any number of repercussions:

- Diagnostic errors
- Wrong treatments
- · Misidentified specimens
- Redraw costs
- Reduced productivity
- · Risks to patient safety
- Litigation
- Lost samples that can't be redrawn, such as biopsy tissue

In addition to impacting patient care, misidentified specimens can incur costs of approximately \$280,000 per million specimens, with redraws, retesting and additional treatment costing \$400 million annually². Healthcare providers face enough challenges on a day-to-day basis. Laboratory labels should be the last thing they need to be concerned about.



Zebra Certified Supplies: Consistently Exceptional and Exceptionally Consistent

Zebra's provides a wide offering of laboratory labeling solutions for:

- Specimen collection, considering the container shape and material
- A wide variety of tests, ensuring they are readable when subjected to stains and chemicals
- Storage, accounting for lengths of time and variance in temperature in refrigerators and freezers

Our solutions perform consistently with every order so that every label is readable and scannable at the end of each lab test. Zebra laboratory labels help you deliver accurate test results to the correct patients for proper treatments in a timely manner.

Verified for challenging surfaces and testing conditions

There are a host of challenging surfaces and testing conditions laboratory labels must solve. Labeling solutions must adapt to flat surfaces or curved surfaces of different sizes, as well as fluctuations in temperature, test equipment, and exposure to solvents and stains during testing procedures. Any one of these factors can compromise the label. Labels on slides, for example, may lose adhesion when they are subject to testing stains. Also it is common for labels to unstick or "flag" when they are put on small curved surfaces and spun in a centrifuge. They may fall off completely, or technicians have to smooth them back on, which can impact efficiency, readability and errors.

- In our Supplies R&D Lab we test labels to ensure they withstand specific temperatures in heating and cooling, and they resist xylene, alcohols, haematoxylin, and other solvents and stains.
- Zebra solutions stay affixed to the most challenging surfaces, such as small curved surfaces, using flexible material and special adhesives.
- Zebra blood bag labels meet ISBT 128 requirements and won't leach through surfaces or contaminate blood.

Zebra labeling solutions meet CLSI AUTO12-A standards

The Clinical and Laboratory Standards Institute (CLSI) developed AUTO12-A standards to prevent specimens in clinical laboratories from being mislabeled. AUTO12-A standards specify label sizes, and locations and formats for data required to be human-readable, such as a patient's name. The standards also specify how to truncate long patient names, location and size of barcodes on labels, orientation of labels on specimen tubes, and other requirements.

Our reliable solutions are designed for a wide range of containers and applications, including:

- Specimen tubes and slides
- Petri dishes
- Breast milk management
- Blood bags
- Point of care specimen labeling



Durable for extended storage

The lengths of time samples must be stored vary widely. The longer the storage in the conditions of any facility, the increased chance for label degradation. Transport also increases the potential for labels to be loosened, unstick and become unreadable. Transport and storage are especially important to consider when you are outsourcing lab tests.

- Zebra offers labels durable enough for extended transport and harsh storage conditions, such as cryogenics, and extended storage, which can be many years for some samples.
- The durability of our labels optimize laboratory management by improving specimen identification, tracking and storage.
- Whether samples are taken at a patient bedside, operating room or wherever the point of care, our labels are designed to travel from sample site to testing lab intact and identifiable.

Easy to print at point of care so you can focus on patient safety

Healthcare providers work in busy environments and don't want to spend their time managing printers. The more time spent printing, managing and transporting labels, the greater risks for errors and loss of productivity.

- Zebra's innovations allow providers to print and apply labels at the point of care to streamline processes, improve efficiencies, and protect patient safety.
- With a TC51 HC and the Zebra ZQ620 Healthcare mobile wireless printer, Zebra improves labeling accuracy by facilitating a three-point check: specimen order, patient wristband and labeled container.
- Zebra offers solutions that work with your LIS (Laboratory Information System) and can create customized solutions to meet the requirements of your application.
- We offer a printer that utilizes ribbon cartridges, so you don't have to struggle with changing ribbons. You simply pop in the cartridge, print your labels and go.

Identify STAT specimens on demand with Zebra's patented, IQ Color labels

Zebra's IQ Color labels enable you to automate STAT specimen identification, eliminate STAT specimen redraws and ensure timely processing. Get rid of the red marker and use Zebra's IQ Color labels to:

- Identify STAT specimens with patented Zebra IQ Color labels that meet CLSI AUTO12-A standards.
- Create visual cues or highlight critical information in current label formats.
- Leverage a flexible, efficient and accurate alternative to pre-printed media.

ZEBRA CERTIFIED SUPPLIES Exceptionally Consistent and Consistently Exceptional 2 **Consistently Outstanding Quality Exceptional Service Unmatched Expertise** • 25+ years of technology innovation · Never substitute materials or Supplies in stock ready for immediate compromise consistency · Leaders in thermal printing hardware • Extensively tested for high quality thousands of materials With a global clientele, Zebra produces laboratory labels for a global market • CLSI AUTO12-A and ISBT 128 compliant Can customize labeling for your specific laboratory labeling needs

Label Solutions			
Application	Label Material	Description	Ribbon
Slide Labeling Tracking of microscope slides with specimens on	Thermalock 4000D	Direct thermal silver polypropylene with does not fade with heat or light exposure. It also offers good chemical resistant.	n/a
Sample Labeling General purpose test tube labelling	IQ Color 2000D	Direct thermal paper label with a permanent acrylic adhesive. Invisible red ink can be activated to indicate STAT samples.	n/a
	Z-Perform 2000D	Direct thermal paper label with an all-temp acrylic adhesive.	n/a
	PolyPro 4000D	Matte polypropylene label with an all-temp permanent acrylic adhesive; waterproof.	n/a
	Z-Xtreme 5000T White	Matte white polyester which can resist harsh chemical and solvents such as Xylene and Acetone.	Image Lock (resin)
	8000D Lab	Direct Thermal paper label with a permanent acrylic adhesive specifically designed to adhere to small, curved surfaces.	n/a
Cryogenic Labeling of samples subject to freeze-thaw cycles	8000T Cryocool	Gloss polypropylene which offers resistance to temperatures as low as -196°C for liquid nitrogen applications.	5095 (resin)
Blood Labeling	8000T Primary Blood Bag	Polypropylene label with an all-temp acrylic adhesive that is compliant with FDA 175.105.	3200
	8000T Blood Bag	Polypropylene label with a permanent acrylic adhesive.	3200

² Ibid.

For more information, visit www.zebra.com/supplies



¹Paul N. Valenstein, Stephen S. Raab, Molly K. Walsh (2006) Identification Errors Involving Clinical Laboratories: A College of American Pathologists Q-Probes Study of Patient and Specimen Identification Errors at 120 Institutions. Archives of Pathology & Laboratory Medicine: Vol. 130, No. 8, pp. 1106-1113.