

**Zebra Certified Supplies** 

# Thermal Transfer Ribbons



### **Consistent Quality and Performance** you can Rely on

When you need to be able to count on long-lasting, consistently reliable label-printing performance, it pays to use quality-tested thermal ribbons from Zebra Certified Supplies.

Inferior thermal ribbons can lead to failed label performance, damaged printheads, lost productivity, and reduced profits. Can you afford to risk everyday operations and business reputation in that way?

With Zebra, you're guaranteed premium print quality and consistency every time. Plus prolonged printhead life, decreased total cost of printer ownership, and exceptional scanning performance.

Nobody knows our printers like we do. Only Zebra offers ribbons that are specifically optimized for exceptional print quality on Zebra labels.

#### **Highest quality assured**

We are passionate about quality. From the products we offer to the expert support we provide. The Zebra Certified Supplies research and development (R&D) team puts all our ribbons through rigorous analysis, performing stringent print quality, durability, and printhead life tests. Tests are conducted on a wide range of material types, at various speeds, in Zebra printers. The result? Maximum printer up-time and high-quality, always-scannable labels.

#### **Comprehensive choice**

Every year, Zebra supplies many million square meters of ribbon to Europe, Middle East and Africa, and US markets. Comprehensive product choice means you'll always be able to find the right printer ribbon for your specific requirements. We hold around 140 different ribbon items for Zebra printers in stock – all available for immediate delivery via ZipShip, our dedicated stocked supplies solution.

#### **Cost-effective supplies**

Zebra is the largest purchaser of ribbons globally and we use this buying power to offer competitive pricing across our range. Our zero substitutions policy means you receive the same ribbon formulation every time you order – for consistent and reliable print quality and durability. Plus, a minimum order of just one box ensures that Zebra Certified Supplies are always cost-effective.



### **Ribbon Products Rigorously Tested to Perform**

Not all thermal ribbons are created equal. There are hundreds of different ribbon formulations in the global market. That's why Zebra's dedicated Supplies R&D team has tested and selected only those ribbons that deliver the best print quality and durability.

In the Zebra Supplies R&D lab, ribbons are rigorously tested on Zebra materials, in Zebra printers. This is done using a special format that includes small font sizes, intricate regulatory symbols, and rotated barcodes - at 203dpi, 300dpi, and 600dpi, and at print speeds from 6ips to 14ips. We analyze print quality and durability using our advanced quantitative print analysis procedure.

Each ribbon and label combination is then tested using specialized equipment to common environmental conditions, including abrasion, extreme temperatures, and chemicals. We also view the printheads under a microscope to assess the amount of ribbon backcoating build-up to identify any negative impacts to the printhead.

### **Quality Assurance at Every Step**

Besides performance, consistency is important. Unlike some competitors, Zebra never substitutes ribbons. You receive the same formulation every time you order. Zebra ribbons are RoHS and Reach compliant and meet FDA indirect food contact regulations. And all our wax/resin and resin ribbons are UL certified with specific Zebra materials.

When you purchase Zebra thermal ribbons, you can rest assured that:



The print will be readable and scannable every time



The print will withstand the environment in which it will be used - including extreme environments like steel mills and freezers



Backcoating will not cause premature printhead failure

This ensures your operations run smoothly, so you can meet both regulatory and customer requirements in confidence.

## **High-Performing Ribbon for Every Application**

Our knowledge and experience in ribbons and ribbon technology ensures you always get the best ribbon to meet your specific application needs – and also get the most out of your Zebra printer. This helps you save on both the purchase of supplies and the total cost of printer ownership.

### Find The Ribbon That's Right For You

Zebra Certified Supplies offers a comprehensive range of wax, wax/resin and resin formulations to meet the durability demands of your application when ideally matched to our thermal transfer materials. All products are available for all of Zebra's industrial and desktop printers – and Zebra wax/resin and resin ribbons are UL certified.



#### Wax Ribbons

## Work well for most applications

Ideal for use:

- With paper materials
- Where fast print speeds are required (up to 12ips)
- In environments with little to no exposure to chemicals and/or abrasion



#### Wax/Resin Ribbons

## Provide Good Abrasion and Chemical Resistance

Ideal for use:

- With top-coated paper and matte synthetic materials
- In environments with moderate to harsh exposure to chemicals and/or abrasion



#### **Resin Ribbons**

### Unmatched Print Quality and Durability

Ideal for use:

- With all synthetic materials and some top-coated labels and tags
- In environments with harsh to extreme exposure to chemicals
- When applications require strong resistance against ultra-high temperatures and harsh outdoor environments

## **Understanding the Importance of Ribbon Composition**

The composition of a ribbon is integral to how that ribbon performs in real-world application. Zebra considers each element of the ribbon to ensure optimum performance is achieved in Zebra printers.

#### **Backcoating**

The back coating is the part of the ribbon closest to the printhead. Its main function is to protect the printhead from excessive heat, static, and abrasion. If the backcoating fails, the ink layer could come into contact with the printhead and cause blockages. This, in turn, would cause poor print quality and printer issues.

A poor-quality backcoating can also cause friction between the ribbon and the printhead, causing damage to the printhead and potentially also a build-up of static electricity. This might not only cause damage to the printer but also prove extremely dangerous for the user.

#### **Carrier Material**

The carrier material is the thickest part of the ribbon. It must offer excellent tear resistance and have good heat conductivity to ensure the ink receives the heat uniformly so high-quality printing can be achieved.

#### **Release Coating**

The release coating provides a bond between the carrier film and the ink. During the printing process, it ensures the ink is transferred evenly and smoothly.

#### Ink Layer

The ink layer is the part of the ribbon that's transferred onto the media. It can be made of wax, resin, or a combination of both. It can also contain additives to help achieve better printing and color, when required.

## **Ribbon Specifications**

		Cost		Print		Scratch		Chemical Resistance	
		Co	ost	Sp	eed	Resis	stance	Resis	tance
Ribbon Formulation			High	Low	High	Low	High	Low	High
Wax Ribbon	ns	_			_			_	
10101010 1010101010 1010101010	<b>1600 Economy</b> Provides good print performance at the best price. Works best for most general-purpose, short-term labeling applications.			-	۰	•		١	
\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	<b>2300 European Wax</b> <sup>1</sup> A standard wax ribbon designed for cost-effective label printing where durability above that offered by a direct-thermal solution is required.						۱		
	<b>5319 Performance</b> <sup>2</sup> A special formulation ribbon for producing high-quality normal and rotated barcodes on coated and uncoated paper. Excellent high-speed performance (up to 8ips), with outstanding visible light and infrared scannability.				۱				
	<b>6000 Performance</b> Offers excellent print quality at high speeds and superior abrasion resistance when compared with conventional wax ribbons.								
	<b>2000 High-Performance</b> Produces high-quality rotated barcodes at high print speeds.							•	
	<b>2100 High-Performance</b> Designed to deliver consistent performance over extended periods, making them ideal for use in Zebra Print Engines and Industrial Printers for high-volume printing applications.								
Wax/Resin I	Ribbons								
	5555 Standard <sup>2</sup> A standard wax/resin label specially designed for use with Zebra P4T mobile printers on coated paper and synthetics. Good print quality and durability when printing barcodes, text, and graphics. Good smear- and scratch resistance. Resistant to excessive moisture, extreme heat, and chemical exposure.						۱		
6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	<b>6100 Standard<sup>3</sup></b> A cost-effective ribbon that can be used on a wide range of materials, reducing the need to stock multiple ribbons.								۰
	<b>3400 High-Performance</b> A high-performance wax/resin ribbon offering increased scratch-, smear- and temperature-resistance. Some moderate chemical resistance when used with Z-Xtreme 4000T label materials.								
	3200 Premium  Offers excellent printability on a wide range of paper and synthetic label materials. Good scratch- and smearresistance. Good heat- and chemical-resistance for moderate chemicals. Resistance to harsh chemicals when used with Z-Xtreme 4000T label materials.								

## **Ribbon Specifications - Continued**

		Cost		Print Speed		Scratch Resistance			mical tance
Ribbon For	rmulation	Low	High	Low	High	Low	High	Low	High
Resin Ribbo	ns								
1	<b>6200 Standard</b> <sup>3</sup> Exhibits high print quality when printing dense barcodes and high-resolution graphics, while performing exceptionally well in environments prone to harsh chemicals and excess abrasion.								
	4800 Performance <sup>4</sup> High-quality resin ribbon that can be used in combination with Zebra's coated paper labels. When used with Zebra synthetic label materials, this ribbon provides excellent chemical- and abrasion-resistance, and small fonts and high-resolution graphics can be printed.			_					
	<b>5095 High-Performance</b> Provides excellent resistance to harsh chemicals, solvents, and high temperatures. Excellent print quality, particularly when small fonts, graphics and rotated barcodes are desired, even at high speeds.		-	_					
	<b>5100 Premium</b> Offers excellent print quality and durability in ultra-high temperatures and harsh outdoor environments.								
	Image Lock <sup>TM</sup> Formulated to provide superior image durability without the use of a laminate. Excellent for extreme environments. Compatible with Zebra's Z-Extreme 5000T and 8000T Image Lock materials.						1		

Specifications subject to change without notice

- 1 Available in EMEA only
- 2 Available in NALA only
- 3 Available in NALA/APAC only
- 4 Available in EMEA only

## **Suggested Ribbon Applications**

Ribbon Formulation		Manufacturing	Retail	Transport & Logistics	Healthcare	Government					
Wax Ribbons											
	1600 Economy	Shelf and scan- pallet labels	Retail labels and tags	Shipping and receiving	Inventory tracking	Inventory tracking					
\$. = 6, - 6; = 6, - 6; = 6, - 6; = 6, - 6; \$. = 6, - 6; \$. = 6, - 6;	3200 European Wax¹	Labelling of packaging material, work- in-progress labels	Product and price promotion labelling	Labelling of packaging materials, including boxes and pallets	Patient record labelling	Document tracking					
	5319 Performance <sup>2</sup>	General purpose, high- density printing	General purpose, high- density printing	General purpose, high- density printing	Printing on Tyvek®	Printing on Tyvek®					
\$ 1.0 \( \text{A} \) =	6000 Performance	Shelf and scan- pallet labels	Retail labels and tags	Shipping and receiving	General purpose labelling	Inventory tracking					
	2000 High-Performance	Shelf and scan- pallet labels	Retail labels and tags	Shipping and receiving	General purpose labelling	Inventory tracking					
	2100 High-Performance	Labelling of packaging materials that require some scratch resistance	Product labelling that is repeatedly scanned	Pallet tags	Pharmacy labelling	General purpose labelling					
Wax/Resin Ri	ibbons										
	5555 Standard <sup>2</sup>	Shelf and scan- pallet labels	Product labelling that is repeatedly scanned	Shipping and packaging	Labels exposed to water, steam, alkali or acidic solutions	Labels subject to abrasion or friction					
6-1 -6-1 -6-1 -6-1 -6-1	6100 Standard <sup>3</sup>	Labels exposed to solvents or chemicals		Outdoor labelling applications in extreme environments	Labels exposed to water, steam, alkali or acidic solutions						
4 - 5 - 1 - 5 - 6 - 1 - 5 - 6 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7	3400 High- Performance	In-process labelling and asset tracking	Price tagging in greenhouses and nurseries	Labelling of packaging materials that will be exposed to variable temperatures							
5. — 6. — 6. — 6. — 6. — 6. — 6. — 6. —	3200 Premium	Outdoor product tags for wire, cable, and fabricated parts	Indoor and outdoor product and shelf-edge labelling	Shipping labels requiring excellent scratch resistance	Pharmacy labelling on a variety of label substrates						

## **Suggested Ribbon Applications - Continued**

Ribbon Forr	nulation	Manufacturing	Retail	Transport & Logistics	Healthcare	Government			
Resin Ribbons									
1	6200 Standard <sup>3</sup>	Labels exposed to water, steam alkali or acidic solutions	For labels repeatedly wand scanned	Shelf and scan pallet labels		Labels subject to abrasion or friction			
	4800 Performance <sup>4</sup>	Labelling of products for construction applications	Price labelling of outdoor items for extended periods	Paper packaging labels that go through heat- shrink tunnels	Labelling of surgical instruments requiring autoclave resistance	Asset tracking requiring chemical resistance			
	5095 High-Performance	High-definition component labelling		Vehicle identification	Laboratory labelling requiring Resistance to harsh chemicals and high temperatures	Asset tracking requiring chemical resistance			
	5100 Premium	High heat applications, such as steel and printed circuit board labelling		Outdoor asset tracking labelling	Laboratory labelling where resistance to very harsh chemicals is required				
	Image Lock™	Chemical- resistant automotive labels			Laboratory labelling where resistance to harsh chemicals are required				

Specifications subject to change without notice

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- 3 Available in NALA/APAC only
- 4 Available in EMEA only

### **Everything You Need. When You Need It.**

Zebra Certified Supplies provide the most consistently outstanding quality, performance, and service. So you never have to worry about thermal printing supply issues interrupting your operations.



## **ZipShip: Zebra's Stocked Supplies Solution**

With ZipShip, Zebra Certified Supplies are available from stock for immediate delivery – to provide what your business needs, when you need it.

Alternatively, Zebra can provide custom-made supplies to suit application-specific requirements.

#### Ready-Made For Rapid Delivery

Zebra's ZipShip Certified Supplies are on the shelf and ready for immediate dispatch. Zebra offers fast shipment and with a minimum order quantity of just one box. Sample rolls are available for all items in our materials range.

#### **Wide Range of Supplies and Matching Ribbons**

Zebra's ZipShip Certified Supplies portfolio contains the most popular label sizes and industry standards. Plus, we stock matched ribbons in a variety of widths to provide the perfect media combination. From healthcare and hospitality wristbands to UL approved polyesters, cryogenic and chemical drum labels, our portfolio offers solutions for every application. This unique range also supports media and ribbon for every live Zebra printer.

#### **ZipShip Kits**

Zebra's ZipShip Kits provide ribbons and media in one box. This provides a perfectly matched ratio of media and ribbon. Available for Desktop and Industrial printers, the kits feature the most popular standard label sizes for address and pallet labels, which are then matched with the perfect ribbon combination.

#### **Quick and Easy to Use**

Choosing the right Zebra ZipShip label and ribbon products is easy with our ZipShip selector tool. Available in 9 languages, it is quick and easy to search the stocked range. Simply answer four quick questions to get a list of all relevant in-stock products, together with immediate pricing, part numbers, spec details, and recommended combination products.

Find your perfect thermal ribbon printing supplies:

Supplies Selector Tool



NA and Corporate Headquarters +1 800 423 0442 inquiry4@zebra.com Asia-Pacific Headquarters +65 6858 0722 contact.apac@zebra.com EMEA Headquarters zebra.com/locations contact.emea@zebra.com Latin America Headquarters zebra.com/locations la.contactme@zebra.com