SELECTOR GUIDE

GENUINE ZEBRA™ SUPPLIES

ZEBRA TECHNOLOGIES

Why Choose Genuine Zebra™ Supplies?

Meet end-user needs and requirements with genuine Zebra supplies. With access to over **1,000 combinations** of high-quality labels, tags, receipt paper, wristbands and ribbons, in addition to **500 stock ZipShip℠ products**, you will be able to meet the durability requirements of most applications. In addition, Zebra has:

- **4 U.S. locations**, ensuring quick delivery.
- **Inventory managment programs** that improve cost and delivery time.
- A **printhead protection program** that awards end-users who purchase genuine Zebra supplies with free printheads.
- **Extensive manufacturing capabilities**, which include laminating, perforations, face and back slits, custom sizes and color pre-printing.
- An **experienced Supplies R&D team** who pre-tests all materials on Zebra® printers and conducts additional testing to ensure it will meet the needs of the application.
- **ISO 90001:2008 registered,** which ensures you'll always receive consistent, quality products.

With more than 1,000 combinations of high-quality and reliable labels, tags, receipt paper, wristbands, and ribbons, Zebra has a media solution for virtually any application. Whether you're facing shipping, electronic component manufacturing, prescription labeling, or even electronic citation applications, Zebra and our certified partners can provide an in-stock or custom-made solution for you.

Custom Supplies

We specialize in manufacturing supplies to meet the exact requirements of an end-user. Whether a specialty material, configuration or pre-print is needed, we can meet your needs.

- Experts available to assist in material selection
  To simplify the selection process, please provide the following information:

  Printer model
  Resistance—chemical, scratch, etc.
  Environment— indoors or outdoors, temperature, etc.
  Surface—metal, plastic, rough, curved, etc.
  Size—length, width, perforations, slits, etc.

- Expedite service offered to reduce lead time
- Over 8,000 dies available

Inventory Management Programs

We offer an array of inventory management programs for custom supplies.

- Blanket Orders
  - » Price protection
  - » Pre-scheduled shipments
  - » Low minimum requirements
- 90-Day Make and Hold
  - » Cost based on larger run quantity
  - » Flexible shipment dates and quantities
- Inventory Management Service
  - » Custom product stocked for you
  - » Immediate shipments

Sample Program

We offer many options to obtain sample materials.

- Sample Packs
  - » Contain an array of materials
  - » ZipShip, synthetic, wristbands, receipt paper
- Strip of Material
  - » Evaluation of adhesive, thickness and durability
- Sample Roll
  - » Available in select sizes for most materials
  - » Evaluation of adhesive, thickness and durability
  - » Ability to print many labels
- ZipShip Roll
  - » Available in several sizes for our most popular materials
  - » Full evaluation to test in application
- Pilot Run
  - » Exact size and configuration
  - » Full evaluation to test in application

Manufacturing Capabilities

A world-class convertor of labels, tags, receipt paper and wristbands, Zebra specializes in narrow-web flexographic printing on thermal materials. By making and testing our own printer supplies, we can assure you receive the highest-quality products performance-matched to your Zebra printer and application. Our multiple manufacturing locations provide convenient shipping throughout North America.

Printing

- Up to eight-color printing with special water-based inks for thermal materials
- Up to three UV colors or coatings
- Front- and back-side printing
- Computerized vision-inspection systems
- UL mark

Converting

- Roll-to-roll and fanfolding
- Press widths from 7 inches to 20 inches
- Laminating
- Die cutting up to five stations
- Perforations, face slits, and back slits
- Adhesive deadening and spot coating
- UL/cUL and CSA recognized

Finishing

- 3/4-inch to 6-inch cores
- Shrink-wrapping
- Custom kits

R&D Capabilities

With more than 25 years of experience working with thermal print technology, Zebra's Supplies R&D team has unparalleled knowledge of supplies for Zebra printers. With access to all Zebra printers and thousands of different materials, we can find the right material for your application.

We Can Test

- Image abrasion/durability
- Accelerated outdoor life
- Adhesion strength on various materials
- Temperatures from -112° F/-80° C to 1,000° F/538° C
- Material tear strength
- Harsh chemicals
- Printhead life

Services Offered

- Application assistance and testing
- New material development
- Exact-match samples
- UL/cUL and CSA approvals
- UID approvals
- IMDS approvals

Material Naming Convention

Example: 8000T Piggyback

Specialty	8000	T	Piggyback

FAMILY	CLASSIFICATION	PRINT TECHNOLOGY	UNIQUE FEATURES
Z-Perform™ Z-Select™ IQ Color PolyO™ PolyPro™ Z-Xtreme™ Z-Ultimate® Z-Supreme™ Specialty	1000 2000 3000 4000 5000 8000	D (Direct thermal) T (Thermal transfer)	Color Adhesive Tag/Receipt Material

Family

Zebra offers a variety of paper and synthetic media, which will meet the requirements of most applications. Paper offers an inexpensive way to print in a variety of general-purpose applications, while synthetic offers more durable, long-lasting results with resistance to abrasion, moisture, and chemicals.

Paper	Synthetic
• Z-Perform • Z-Select • IQ Color • Specialty	• PolyO • PolyPro • Z-Xtreme • Z-Ultimate • Z-Supreme

Classifications

Zebra media products are classified by their level of performance and cost. Specialty products are classified separately.

1000-5000	8000
The higher the number, the higher the performance	Specialty products with some unique features designed for specialized applications

Print Technology

Thermal transfer technology uses a ribbon to transfer an image onto the label material. Direct thermal technology does not require a ribbon. Instead, a chemically coated heat-sensitive material produces images as heat is applied to the surface.

Direct Thermal	Thermal Transfer
• Primarily indoor use • Short to medium-term lifespan • Minimal chemical resistance • No ribbon	• Indoor or outdoor usage • Medium to long-term lifespan • Excellent chemical resistance • Ribbon needed

Unique Feature

The unique feature is a material attribute that differentiates the product. For example, the product can be described by the color, adhesive, material, or whether it is a tag or receipt.

Comparison of Thermal Transfer Ribbons

Ribbon	Formulation	Material compatibility	Darkness setting		Print speed		Scratch/smear resistance		Chemical resistance	
			Low	High	Low	High	Low	High	Low	High
2000 Standard	Wax	Coated Paper								
2100 Enhanced	Wax	Coated Paper								
5319 Performance	Wax	Uncoated Paper/ Coated Paper								
5049 High-Speed Premium	Wax	Uncoated Paper/ Coated Paper								
5555 Enhanced	Wax/Resin	Coated Paper/ Matte Synthetics								
3200 Performance	Wax/Resin	Coated Paper/ Matte Synthetics								
5586 Premium	Wax/Resin	Coated Paper/ Matte Synthetics								
4100 Enhanced	Resin	Gloss Synthetics								
5095 Performance	Resin	Gloss Paper/ Gloss Synthetics								
5100 Premium	Resin	Gloss Synthetics								
Image Lock	Resin	Gloss/Matte Synthetics								

Supplies Industry Application Table

Application	Recommended media	Alternate media	Specialty/other
Common Applications Across Multiple Industries			
Shipping/Receiving	Z-Perform 2000T	8000D Near IR	Z-Slip
Location/Bin Labeling	Z-Ultimate 2000T	PolyPro 4000T	8000T Retroscan
Document Tracking	Z-Select 4000D	Z-Perform 2000D	Z-Select 4000D Removable
Asset Tracking	Z-Ultimate 4000T	PolyPro 3000T High Tack	8000T Checkerboard Gloss
Healthcare			
Admitting & Patient ID	Z-Band Direct	Z-Band QuickClip	Z-Band 4000
Laboratory	8000D Lab	Z-Select 4000D	8000T CryoCool
Pharmacy	Z-Select 4000D	8000D Lab	PolyPro 4000T
Blood Bank	8000T Primary Blood Bag	8000T Blood Bag	N/A
Manufacturing			
Top-side PCB Labeling	Z-Ultimate 4000T	Z-Ultimate 2000T	8000T ESD Gloss
Bottom-side PCB Labeling	Z-Supreme 4000T	Z-Supreme 3000T	N/A
Product Identification	Z-Ultimate 4000T	8000T Image Lock	8000T Void Gloss
Work in Process	Z-Select 4000T 9.0 mil Tag	PolyPro 4000T 8.5 mil Tag	8000T Ultra-Tuff 9.5 mil Tag
Retail			
Shelf Labeling	Z-Select 4000D Removable	PolyPro 4000D	Z-Perform 1000D
Inventory Management	Z-Perform 2000D	Z-Perform 1000D	Z-Perform 1000D 2.4 mil Receipt
Customer Management	Z-Perform 1000D 3.5 mil Receipt	Z-Perform 1000D 2.4 mil Receipt	Z-Perform 1000D
Horticulture/Nursery	8000T Tuff 7.0 mil Tag	PolyPro 3000T	PolyPro 4000T 8.5 mil Tag
Direct Store Delivery			
Delivery/Route Sales	8000D High-Temp 3.2 mil Receipt	Z-Select 4000D 3.2 mil Receipt	Z-Perform 1000D 2.4 mil Receipt
Inventory Management	Z-Perform 1000D	Z-Select 4000D 3.2 mil Receipt	Z-Perform 1000D 2.4 mil Receipt
Public Safety			
E-Citations	8000D High-Temp 3.2 mil Receipt	Z-Select 4000D 3.2 mil Receipt	PolyPro 4000D 3.8 mil Receipt
Evidence & Property Management	Z-Select 4000T	Z-Select 4000D	PolyPro 4000D

UL/cUL-Recognized and CSA-Accepted Labeling Systems

Zebra offers one of the largest selections of UL/cUL-certified label and ribbon combinations. In addition, all of our locations are authorized to pre-print the UL mark.

Product	Material	Ribbon	Recognition
Z-Ultimate 4000T White	Polyester	5095, 5100	UL/cUL indoor/outdoor; CSA indoor/outdoor
Z-Ultimate 4000T Silver	Polyester	5095, 5100	UL/cUL indoor/outdoor; CSA indoor/outdoor
Z-Ultimate 4000T Removable	Polyester	5095, 5100	UL/cUL indoor
Z-Ultimate 4000T High-Tack	Polyester	4100, 5095, 5100	UL/cUL indoor/outdoor; CSA indoor/outdoor
Z-Ultimate 3000T White	Polyester	4100, 5095, 5100	UL/cUL indoor/outdoor; CSA indoor/outdoor
Z-Ultimate 3000T Silver	Polyester	4100, 5095, 5100	UL/cUL indoor/outdoor; CSA indoor/outdoor
Z-Ultimate 2000T White	Polyester	4100, 5095, 5100	UL/cUL indoor/outdoor
Z-Xtreme 5000T White	Polyester	Image Lock	UL/cUL indoor/outdoor
Z-Xtreme 5000T Silver	Polyester	Image Lock	UL/cUL indoor/outdoor
Z-Xtreme 4000T White	Polyester	5319, 5049, 3200, 5586, 5095, 5100	UL/cUL indoor/outdoor; CSA indoor/outdoor
Z-Xtreme 4000T Silver	Polyester	5319, 5049, 3200, 5586, 5095, 5100	UL/cUL indoor/outdoor; CSA indoor/outdoor
Z-Xtreme 4000T High-Tack White	Polyester	5319, 5049, 3200, 5586, 5095, 5100	UL/cUL indoor/outdoor; CSA indoor/outdoor
Z-Xtreme 4000T High-Tack Silver	Polyester	5319, 5049, 3200, 5586, 5095, 5100	UL/cUL indoor/outdoor; CSA indoor/outdoor
Z-Xtreme 2000T White	Polyester	3200, 5586, 5095	UL/cUL indoor
Z-Xtreme 2000T Silver	Polyester	3200, 5586, 5095	UL/cUL indoor
Z-Xtreme 2000T Clear	Polyester	3200, 5586, 5095	UL/cUL indoor
8000T Void Matte	Polyester	5586, 5095	UL/cUL indoor/outdoor

Many Zebra printing systems are recognized by Underwriters Laboratory (UL/cUL) and accepted by the Canadian Standards Association (CSA) for printing indoor- and outdoor-use labels. These media/ribbon combinations include the above. If your application requires a UL/cUL-recognized or CSA-accepted labeling system, please consult with your Zebra account executive to determine which printer models can be used with these UL/cUL and CSA label/ribbon combinations.

Adhesives

Adhesive	Description
Acrylic	General-purpose; provides long-term adhesion; resistance to chemicals and UV exposure; works across a wide temperature range
Rubber	General-purpose; provides good initial tack; offers adhesion to rough surfaces; not recommended for auto apply
High-Performance	Offers higher resistance to chemicals and UV exposure; often has agency approval such as indirect food contact (FDA 175.105), UL/cUL and CSA approval
High-Temp	Maintains strong adhesion at high temperatures (over 300º F /149º C)
Cold-Temp	Maintains strong adhesion at low temperatures (down to -112º F /-80º C)
All-Temp	May be applied to temperatures below freezing (32º F /0º C)
Removable	Clean removal from most surfaces without damaging the label or the surface
Ultra-Removable	Clean removal from nearly all surfaces, including metal and glass, without damaging the label or the surface
Multi-Removable	Offers dual functionality; provides permanent long-term adhesion but also allows for clean removal; repositionable to allow for removal, adjustment, and reapplication
High-Tack Acrylic	Works well on hard-to-label surfaces and provides good resistance to chemicals and UV exposure
High-Tack Rubber	Works very well on hard-to-label surfaces; provides good initial tack

*All adhesives above are permanent unless stated otherwise.

UID Solution Supplies Selector Guide

Media & ribbon combination	Z-Ultimate 4000T White with 5100 Ribbon	Z-Ultimate 4000T Silver with 5100 Ribbon	Z-Xtreme 5000T with Image Lock™ Ribbon	8000T Ultra High-Tack Matte with 5095 Ribbon	PolyPro 4000T with 5095 Ribbon	8000T Image Lock with Image Lock Ribbon	8000T Z-Endure™ with 5100 Ribbon	8000T Piggyback Clear Matte with 5586 Ribbon
Ribbon type	Resin	Resin	Resin	Resin	Resin	Resin	Resin	Wax-Resin
Material description	Gloss Polyester	Gloss Polyester	Matte Polyester	Matte Polyester	Matte Polypropylene	Polyolefin	Semi-Gloss Acrylic	Gloss/Matte Polyester Combination
Adhesive types	Permanent Acrylic	Permanent Acrylic	High-Tack Permanent Acrylic	High-Tack Permanent Acrylic	Permanent Acrylic	Permanent Acrylic	Permanent Acrylic	Permanent Acrylic
Minimum application temp.	50° F/10° C	50° F/10° C	50° F/10° C	40° F/4° C	10° F/-12° C	50° F/10° C	50° F/10° C	50° F/10° C
Service temp.	-40° F to 302° F -40° C to 150° C	-40° F to 302° F -40° C to 150° C	-40° F to 302° F -40° C to 150° C	-20° F to 302° F -29° C to 150° C	-40° F to 250° F -40° C to 121° C	-112° F to 248° F -80° C to 120° C	-40° F to 302° F -40° C to 150° C	-40° F to 302° F -40° C to 150° C
Surface to be labeled	Corrugate, Paper, Packaging Films, Metal, Glass	Corrugate, Paper, Packaging Films, Metal, Glass	Corrugate, Paper, Packaging Films, Metal, Glass	Corrugate, Paper, Packaging Films, Metal, Glass, Rough Surfaces	Corrugate, Paper, Packaging Films, Metal, Glass	Corrugate, Paper, Packaging Films, Metal, Glass, Curved Surfaces	Corrugate, Paper, Packaging Films, Metal, Glass	Corrugate, Paper, Packaging Films, Metal, Glass
Environment	Indoor Outdoor up to 3 years	Indoor Outdoor up to 3 years	Indoor Outdoor up to 3 years	Indoor Outdoor up to 3 years	Indoor Outdoor up to 2 years	Indoor Outdoor up to 5 years	Indoor Outdoor up to 10 years	Indoor Outdoor up to 3 years
Resistance	Moisture, Abrasion, Weak-to-Moderate Chemicals	Moisture, Abrasion, Weak-to-Moderate Chemicals	Moisture, Abrasion, Weak-to-Moderate Chemicals	Moisture, Weak-to-Moderate Chemicals	Moisture, Weak-to-Harsh Chemicals	Moisture, Abrasion, Weak-to-Harsh Chemicals	Moisture, Abrasion, Weak-to-Moderate Chemicals	Moisture, Abrasion, Weak-to-Harsh Chemicals
Compliant to MIL PRF 61002A	Type II, Grade A B & C, Style 1, Composition b	Type II, Grade A B & C, Style 1, Composition b	Type II, Grade A B & C, Style 1, Composition b	Type II, Grade A B & C, Style 1, Composition b	Type II, Grade A B & C, Style 1, Composition b	Type II, Grade A B & C, Style 1, Composition b	Type II, Grade A B & C, Style 1, Composition b	Type II, Grade A B & C, Style 1, Composition b

Labels

Performance Characteristics: • Recommended • Test In Your Application NR Not Recommended

Paper Labels

Product Name	Thermal Transfer (TT) Direct Thermal (DT)	Product Description	Applications	Minimum Application Temperature
Z-Perform™	Bright white, smooth paper facestock that provides the optimal balance between performance and price for industrial applications. Recommended for indoor use.			
1000D	DT	Uncoated paper label with a permanent acrylic adhesive; limited resistance to moisture or abrasion; not recommended for high print speed applications	Indoor, general-purpose labeling; warehouse, distribution, bakery application, and address labeling	25° F -4° C
2000T	TT	Paper label with a permanent acrylic adhesive; meets FDA 175.105 indirect food contact requirements	Labeling of packaging material including corrugate, plastic, and metal; work in process	25° F -4° C
2000D	DT	Paper label with an all-temp acrylic adhesive	Packaging and compliance labeling; indoor labeling applications	-40° F -40° C
Z-Select™	Premium, bright white, ultra-smooth paper facestock specially coated to provide optimal quality. Ideal for high-speed printing applications where print quality is important. Recommended for indoor use.			
4000T	TT	Paper label with permanent acrylic adhesive that may be used across a wide temperature range; meets FDA 175.105 indirect food contact requirements	Labeling of packaging material including corrugate, plastic, and metal; product identification, compliance labeling, work in process	25° F -4° C
4000T All-Temp	TT	Paper label with a permanent all-temp acrylic adhesive that allows the label to be applied to surfaces as cold as -20° F /-29° C	Labeling of packaging material including corrugate, plastic, and metal; ideal for identifying products in cold storage or refrigerated warehouses	-20° F -29° C
4000T Removable	TT	Paper label with a removable acrylic adhesive for applications requiring clean removability without damaging the label or the surface; meets FDA 175.105 indirect food contact requirements	Product identification; labeling of shelves, bins, or totes intended for reuse when labels are removed	40° F 4° C
4000D	DT	Paper label with a permanent all-temp acrylic adhesive that allows the label to be applied to surfaces as cold as -20° F /-29° C; meets FDA 175.105 indirect food contact requirements	Labeling of most packaging materials; document tracking; cold-temp applications; IV bag labeling	-20° F -29° C
4000D Removable	DT	Paper label with a removable acrylic adhesive for applications requiring clean removability without damaging the label or the surface; meets FDA 175.105 indirect food contact requirements	General-purpose product and food labeling; removable shelf labeling	40° F 4° C
IQ Color	Bright white, smooth paper facestock that has the ability to print vibrant color on demand in pre-defined zones to be used as a visual cue.			
2000D	DT	Paper label with a permanent acrylic adhesive. Limited resistance to moisture or abrasion.	Healthcare for prioritization of lab and pharmacy orders. Transportation and logistics for sortation and inventory management. Manufacturing for quality control and work in process. Retail for shelf and product labeling	25° F -4° C
2000D Removable	DT	Paper label with a removable acrylic adhesive. Limited resistance to moisture or abrasion.	Transportation and logistics for sortation and inventory management. Manufacturing for quality control and work in process. Retail for shelf and product labeling	40° F 4° C
Specialty	White paper labels and tags designed for unique or challenging applications. Recommended for indoor use.			
8000T High-Tack	TT	Paper label with a permanent rubber adhesive that provides high initial tack; meets FDA 175.105 indirect food contact requirements	Labeling of corrugate and recycled corrugate; shipping labels	40° F 4° C
8000T Super-Tack	TT	Paper label with a Hammerlock® permanent rubber adhesive that provides best initial and long-term adhesion	Difficult surfaces such as wood and textured substrates	30° F -1° C
8000T Multi-Removable	TT	Paper label with a multi-removable adhesive that offers dual functionality; provides permanent adhesion to corrugate surfaces but also allows clean removal from glass surfaces; repositionable	Labeling cartons, totes, and bins; promotional and shelf labels; allows frequent application and removal of label	25° F -4° C
8000T Ultra-Removable	TT	Paper label with an ultra-removable acrylic adhesive that provides long-term clean removability	Removable shelf or scan pallet labels; removable document labels	20° F -7° C
8000T Opaque	TT	Opaque paper label with a permanent acrylic adhesive; meets FDA 175.105 indirect food contact requirements	Applications requiring a "cover-up" label; product ID; chemical containers	20° F -29° C
8000T Piggyback	TT	Piggyback paper label with a permanent acrylic adhesive that allows for removing the label, leaving the liner, and re-applying the second liner to a final application	Labeling of packaging materials; order picking; work in process	25° F -4° C
8000T Repulpable	TT	Repulpable paper label with a permanent acrylic adhesive	Paper mill labeling where paper wrap (label included) is thrown back into the paper-making process and repulped	40° F 4° C

	Surfaces to be Labeled								Environment		Resistance						Suggested Ribbons	
Service Temperature	**Corrugate**	**Paper**	**Packaging Films**	**Most Plastics**	**Metal and Glass**	**Rough Surfaces**	**Curved Surfaces**	**Moist Surfaces**	**Indoors**	**Outdoors**	**Moisture**	**Abrasion**	**Chemical–Weak** (ie. Window Cleaner)	**Chemical–Moderate** (ie. Alcohol, Bleach)	**Chemical–Harsh** (ie. Gasoline, Oil)	**Chemical–Extreme** (ie. Acetone, Xylene)	**Standard Application– Weak and Moderate Chemicals**	**High Durability– Abrasion, Harsh and Extreme Chemicals**
-40° F to 140° F -40° C to 60° C	●	●	●	●	●	●	●	●	●	NR	NR	●	NR	NR	NR	NR	N/A	N/A
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2000, 5319	5555, 3200
-65° F to 131° F -54° C to 55° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2000, 2100, 5049, 5319	5555, 3200
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2000, 2100, 5049, 5319	5555, 3200
-65° F to 180° F -54° C to 82° C	●	●	●	●	●	NR	NR	NR	●	NR	●	●	●	NR	NR	NR	2000, 2100, 5319	5555, 3200
-65° F to 140° F -54° C to 60° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-65° F to 140° F -54° C to 60° C	●	●	●	●	●	NR	NR	NR	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-65° to 120° F -54° to 40° C	●	●	●	●	●	●	●	●	●	NR	NR	●	NR	NR	NR	NR	N/A	N/A
-65° to 120° F -54° to 40° C	●	●	●	●	●	NR	NR	NR	●	NR	NR	●	NR	NR	NR	NR	N/A	N/A
-65° F to 160° F -54° C to 71° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2000, 5319	5555, 3200
-65° F to 150° F -54° C to 66° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2000, 5319	5555, 3200
-20° F to 200° F -29° C to 93° C	●	●	●	●	●	NR	●	●	●	NR	●	●	●	NR	NR	NR	2000, 5319	N/A
-40° F to 160° F -40° C to 71° C	●	●	●	●	●	NR	NR	NR	●	NR	●	●	●	NR	NR	NR	2000, 5319	5555, 3200
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2000, 5319, 2100	5555, 3200
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2000, 5319	5555, 3200
-20° F to 200° F -29° C to 93° C	●	●	●	●	●	●	●	●	●	NR	●	●	NR	NR	NR	NR	2000, 5319	3200

Labels

Performance Characteristics: • Recommended • Test In Your Application NR Not Recommended

	Product Name	Thermal Transfer (TT) Direct Thermal (DT)	Product Description	Applications	Minimum Application Temperature
Paper Labels	**Specialty** (continued)	White paper labels and tags designed for unique or challenging applications. Recommended for indoor use.			
	8000T Semi-Gloss	TT	Semi-gloss paper label with a permanent rubber adhesive; meets FDA 175.105 indirect food contact requirements	Product identification; diskette labeling; high-volume applications	25° F -4° C
	8000T High-Gloss	TT	High-gloss paper label with permanent acrylic adhesive	High-gloss retail and consumer goods package labels; color preprinted labels	25° F -4° C
	8000T PCW30	TT	Paper label with a permanent acrylic adhesive that contains 30% post-consumer waste (PCW) and features an EBA/RCA (environmentally benign/recycling compatible) adhesive	Labeling of packaging material including corrugate, plastic, and metal; product identification, compliance labeling, work in process	25° F -4° C
	8000T PCW30 High-Tack	TT	Paper label with a permanent rubber adhesive that contains 30% post-consumer waste (PCW). Meets FDA 175.105 for indirect food contact requirements	Labeling of corrugate and recycled corrugate; shipping labels	25° F -4° C
	8000T Lab	TT	Paper label with a permanent acrylic adhesive specifically designed to adhere to small, curved surfaces	In hospitals, laboratories and pharmacies on curved surfaces, such as vials, test tubes and syringes	25° F -4° C
	8000D Lab	DT	Paper label with a permanent acrylic adhesive specifically designed to adhere to small, curved surfaces	In hospitals, laboratories and pharmacies on curved surfaces, such as vials, test tubes and syringes	25° F -4° C
	8000D Near IR	DT	Paper label with a permanent acrylic adhesive; scannable in both visible and near infrared wavelength; meets FDA 175.105 indirect food contract requirements	Shipping applications; indoor, general-purpose labeling; meets requirements of package delivery industry	25° F -4° C
	8000D IR	DT	Paper label with an all-temp permanent acrylic adhesive; scannable in visible, near infrared, and infrared ranges; meets FDA 175.105 indirect food contact requirements	Indoor, general-purpose labeling; labeling of most packaging material; excellent for cold-temperature applications	-20° F -29° C
	8000D High-Temp	DT	Paper label with high-performance permanent acrylic adhesive that provides temperature resistance up to 194° F/90° C; offers superior durability under fluorescent bulbs and partial UV exposure (through window)	Hot food labeling such as pizza; coffee; direct store delivery; archival use and short-term outdoor use	-40° F -40° C
	8000D Linerless	DT	Linerless paper label with permanent acrylic adhesive; eliminates liner waste	Indoor, general-purpose labeling; labeling of most packaging material; excellent for cold-temp applications	40° F 4° C
	8000D Linerless Removable	DT	Linerless paper label with removable acrylic adhesive; eliminates liner waste	Indoor removable general-purpose labeling; labeling of most packaging material; excellent for cold-temp applications	40° F 4° C
	8000D Pharmacy Vial	DT	Premium, ultra-smooth paper label with a permanent acrylic adhesive	Labeling of prescription vials in a retail pharmacy	25° F -4° C
Synthetic Labels	**PolyO™**	White, corona-treated polyolefin facestock that provides flexibility for labeling curved or rough surfaces; minimal resistance to scratching and smearing. Recommended for applications that require up to 6 months outdoors; temperature exposure up to 200° F/93° C.			
	3000T	TT	Highly flexible corona-treated polyolefin label with an all-temp permanent acrylic adhesive that provides high initial tack designed exclusively for industrial labeling applications	Chemical drum labeling; product labeling; retail applications; recyclable shrink wrap applications; labeling harness configurations	25° F -4° C
	4000T	TT	Semi-rigid corona-treated polyolefin label with an all-temp permanent acrylic adhesive that provides high initial tack and cold-temperature properties; meets FDA 175.105 indirect food contact requirements	Chemical drum labels; medical and pharmaceutical labeling; cold-temperature storage	10° F -12° C
	PolyPro™	White, matte polypropylene facestock that provides high print quality and resistance to scratching and smearing; offers some flexibility for labeling curved surfaces. Thermal transfer materials recommended for applications that require up to 1-2 years outdoors; temperature exposure up to 250° F /121° C.			
	3000T	TT	Polypropylene label with a permanent acrylic adhesive; meets FDA 175.105 indirect food contact requirements	Chemical drum, test tube, or indirect food labeling; capital asset labeling; labeling small curved or irregularly shaped products; labeling packages in cold storage	45° F 7° C
	3000T High-Tack	TT	Polypropylene label with a high-tack permanent acrylic adhesive	Chemical drum, medical device, or indirect food labeling; capital asset labeling; labeling small curved or irregularly shaped products; hard-to-label surfaces	32° F 0° C
	4000T	TT	Kimdura® polypropylene label with a permanent acrylic adhesive; CSA acceptances; meets FDA 175.105 indirect food contact requirements	Chemical drum, medical device, or indirect food labeling; capital asset labeling; labeling small curved or irregularly shaped products; UID compliance	10° F -12° C
	4000T High-Tack	TT	Kimdura polypropylene label with a high-tack acrylic permanent adhesive; meets FDA 175.105 indirect food contact requirements	Chemical drum, medical device, or indirect food labeling; capital asset labeling; labeling small curved or irregularly shaped products; hard-to-label surfaces	35° F 2° C

	Surfaces to be Labeled								Environment		Resistance						Suggested Ribbons	
Service Temperature	**Corrugate**	**Paper**	**Packaging Films**	**Most Plastics**	**Metal and Glass**	**Rough Surfaces**	**Curved Surfaces**	**Moist Surfaces**	**Indoors**	**Outdoors**	**Moisture**	**Abrasion**	**Chemical–Weak** (ie. Windowv Cleaner)	**Chemical–Moderate** (ie. Alcohol, Bleach)	**Chemical–Harsh** (ie. Gasoline, Oil)	**Chemical–Extreme** (ie. Acetone, Xylene)	**Standard Application– Weak and Moderate Chemicals**	**High Durability– Abrasion, Harsh and Extreme Chemicals**
-65° F to 160° F -54° C to 71° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2000, 5319	3200
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	●	NR	NR	5586, 3200	5095
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2000, 5319	3200
-65° F to 160° F -54° C to 71° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2000, 5319	3200
-75° F to 200° F -59° C to 93° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	2100, 5319, 5555	3200, 5586
-75° F to 120° F -59° C to 49° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-40° F to 140° F -40° C to 60° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-65° F to 140° F -54° C to 60° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-40° F to 194° F -40° C to 90° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-40° F to 140° F -40° C to 60° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-40° F to 140° F -40° C to 60° C	●	●	●	●	●	NR	NR	NR	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	●	NR	NR	N/A	N/A
-40° F to 200° F -40° C to 93° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	NR	NR	3200, 5586	5095
-40° F to 176° F -40° C to 80° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	NR	NR	3200, 5586	5095
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	3200, 5586	4100, 5095
-75° F to 200° F -59° C to 93° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	3200, 5586	4100, 5095
-40° F to 250° F -40° C to 121° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	5555, 3200	5586
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	5555, 3200	5586

Labels

Performance Characteristics: • Recommended • Test In Your Application NR Not Recommended

Synthetic Labels

Product Name	Thermal Transfer (TT) Direct Thermal (DT)	Product Description	Applications	Minimum Application Temperature
PolyPro™ (continued)	White, matte polypropylene facestock that provides high print quality and resistance to scratching and smearing; offers some flexibility for labeling curved surfaces. Thermal transfer materials recommended for applications that require up to 1-2 years outdoors; temperature exposure up to 250° F/93° C.			
4000T Removable	TT	Kimdura polypropylene label with a removable acrylic adhesive; provides good resistance to common industrial cleaning solutions	Removable shelf, bin, furniture, or product labeling	45° F 7° C
4000D	DT	Polypropylene label with an all-temp permanent acrylic adhesive that allows label to be applied to surfaces as cold as -40° F/40° C, meets FDA 175.105 indirect food contact requirements	Indoor, general-purpose labeling; houseware goods labeling; cold storage; provides good resistance to common industrial cleaning solutions	-40° F -40° C
4000D Removable	DT	Polypropylene label with a removable acrylic adhesive; meets FDA 175.105 indirect food contact requirements	Indoor, removable, general-purpose labeling; labeling Tupperware® containers; shelf labeling	10° F -12° C
Z-Xtreme™	White, matte polyester facestock that provides outstanding print quality and good smear and scratch resistance. Offers excellent resistance to chemicals. Recommended for applications that require up to 3 years outdoors; temperature exposure up to 300° F/149° C.			
2000T	TT	Matte polyester label with a permanent acrylic adhesive; UL/cUL acceptances; provides moderate chemical resistance; also available in silver and clear	UL/cUL compliance product labeling; asset labeling; serial plate labeling	50° F 10° C
2000T High-Tack	TT	Matte polyester label with a high-tack permanent acrylic adhesive; provides moderate chemical resistance; also available in silver	Product labeling; medical device labeling; asset labeling; serial plate labeling; hard-to-label surfaces	50° F 10° C
2000T Removable	TT	Matte polyester label with a removable acrylic adhesive; provides moderate chemical resistance	Removable shelf or bin labels; provides good resistance to common industrial cleaning solutions	50° F 10° C
4000T	TT	Matte polyester label with a high-performance acrylic adhesive; UL/cUL and CSA acceptances; provides harsh-chemical resistance; also available in silver	UL/cUL and CSA compliance product labeling; asset labeling; automotive labeling, particular around battery use; medical device labeling; serial plate labeling	50° F 10° C
4000T High-Tack	TT	Matte polyester label with a high-tack permanent rubber adhesive; UL/cUL and CSA acceptances; provides harsh-chemical resistance; also available in silver	UL/cUL and CSA compliance product labeling; medical device labeling; asset labeling; automotive labeling; serial plate labeling; hard-to-label surfaces	50° F 10° C
5000T	TT	Matte polyester label with a permanent acrylic adhesive; UL/cUL acceptances; provides the most extreme chemical resistance; also available in silver and clear	UL/cUL compliance product labeling, asset labeling, automotive labeling, particularly around battery use; medical device labeling; serial plate labelings	50° F 10° C
Z-Ultimate®	White, gloss polyester facestock that provides outstanding print quality and unparalleled smear and scratch resistance. Offers good resistance to chemicals. Recommended for applications that require up to 3 years outdoors; temperature exposure up to 300° F/150° C.			
2000T	TT	Polyester gloss label with a permanent acrylic adhesive; UL/cUL acceptances	Product labeling; top-side PCB labeling; asset labeling; automotive labeling; serial plate labeling; fanfolding applications	50° F 10° C
3000T	TT	Gloss polyester label with a high-performance permanent acrylic adhesive; UL/cUL and CSA acceptances; also available in silver	UL/cUL and CSA compliance product labeling; top-side PCB labeling; asset labeling; automotive labeling; serial plate labeling	50° F 10° C
4000T	TT	Gloss polyester label with a high-performance permanent acrylic adhesive; UL/cUL and CSA acceptances; also available in silver and clear	UL/cUL and CSA compliance product labeling; top-side PCB labeling; asset labeling; automotive labeling; serial plate labeling; UID compliance	50° F 10° C
4000T High-Tack	TT	Gloss polyester label with a high-tack permanent acrylic adhesive; UL/cUL and CSA acceptances; also available in silver	UL/cUL and CSA compliance product labeling; asset labeling; automotive labeling; serial plate labeling; fanfolding applications; hard-to-label surfaces	50° F 10° C
4000T Removable		Gloss polyester label with a removable acrylic adhesive; UL/cUL acceptances	UL/cUL compliance product labeling; removable shelf or scan-pallet labels; labels in contact with moving parts or friction; fanfolding applications	50° F 10° C
Z-Supreme™	White, polyimide facestock designed for high-temperature environments up to 500° F/260° C. Recommended for printed circuit board (PCB) labeling.			
3000T	TT	Matte polyimide label with a high-temp permanent acrylic adhesive that provides resistance to harsh environments; not recommended for processes using lead-free solder	Printed circuit board top- and bottom-side applications; harsh environments; high-temp industrial applications	50° F 10° C
4000T	TT	Gloss polyimide label with a high-temp permanent acrylic adhesive that provides resistance to harsh environments; also available in yellow, blue, and green	Printed circuit board top- and bottom-side applications including lead-free manufacturing processes; harsh environments; high-temp industrial applications	50° F 10° C

	Surfaces to be Labeled								Environment		Resistance						Suggested Ribbons	
Service Temperature	**Corrugate**	**Paper**	**Packaging Films**	**Most Plastics**	**Metal and Glass**	**Rough Surfaces**	**Curved Surfaces**	**Moist Surfaces**	**Indoors**	**Outdoors**	**Moisture**	**Abrasion**	**Chemical–Weak** (ie. Window Cleaner)	**Chemical–Moderate** (ie. Alcohol, Bleach)	**Chemical–Harsh** (ie. Gasoline, Oil)	**Chemical–Extreme** (ie. Acetone, Xylene)	**Standard Application– Weak and Moderate Chemicals**	**High Durability– Abrasion, Harsh and Extreme Chemicals**
0° F to 160° F -18° C to 71° C	●	●	●	●	●	NR	NR	NR	●	●	●	●	●	●	●	●	5555, 3200	5586
-65° F to 131° F -54° C to 55° C	●	●	●	●	●	●	●	NR	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-20° F to 120° F -29° C to 49° C	●	●	●	●	●	NR	NR	NR	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-40° F to 302° F -40° C to 150° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	NR	NR	3200, 5586	5095, 5100
-40° F to 302° F -40° C to 150° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	NR	NR	3200, 5586	5095, 5100
-40° F to 302° F -40° C to 150° C	●	●	●	●	●	NR	NR	●	●	●	●	●	●	●	NR	NR	3200, 5586	5095, 5100
-40° F to 300° F -40° C to 149° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	●	3200, 5586	4100, 5095
-40° F to 300° F -40° C to 149° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	3200, 5586	4100, 5095
-40° F to 300° F -40° C to 149° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	●	Image Lock	Image Lock
-40° F to 302° F -40° C to 150° C	●	●	●	●	●	NR	NR	NR	●	●	●	●	●	●	●	NR	4100, 5095	5100
-40° F to 302° F -40° C to 150° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	4100, 5095	5100
-40° F to 302° F -40° C to 150° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	4100, 5095	5100
-40° F to 302° F -40° C to 150° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	4100, 5095	5100
-20° F to 302° F -29° C to 150° C	●	●	●	●	●	NR	NR	NR	●	●	●	●	●	●	●	NR	4100, 5095	5100
-40° F to 482° F -40° C to 250° C	NR	NR	NR	●	●	●	●	●	●	●	●	●	●	●	●	NR	N/A	5100
-40° F to 500° F -40° C to 260° C	NR	NR	NR	●	●	●	●	●	●	●	●	●	●	●	●	NR	N/A	5100

Labels

Performance Characteristics: • Recommended • Test In Your Application NR Not Recommended

Synthetic Labels

Product Name	Thermal Transfer (TT) Direct Thermal (DT)	Product Description	Applications	Minimum Application Temperature
Specialty	White, synthetic labels designed for unique or challenging applications.			
8000T Image Lock	TT	Polyolefin label with a permanent acrylic adhesive; match with Image Lock ribbon to produce exceptional print quality; provides excellent chemical resistance; 5-year outdoor durability	Chemical drums; laboratory labeling; automotive labeling; process control of electronic components; serial plate labeling; UID compliance	50° F 10° C
8000T Low-Temp Matte	TT	Matte polyolefin label with a cold-temp permanent acrylic adhesive that offers -112° F /-80° C performance for low-temperature use; provides resistance to repeated freeze and thaw cycles	Cold-temperature applications down to -112° F/-80° C; cold storage; virology labeling, genetics labeling, DNA sequencing; labeling vials, test tubes, ampules	50° F 10° C
8000T CryoCool™	TT	Polypropylene label with a cold-temp permanent acrylic adhesive that offers extremely low-temperature performance down to -320° F /196° C	Cryogenic applications involving a deep freezing process; medical labs, hospitals	-20° F -29° C
8000T Low-Temp Gloss	TT	Gloss polypropylene label with a cold-temp permanent acrylic adhesive that offers -112° F /-80° C performance for low-temperature use; provides outdoor durability for 1-2 years; available in white and clear	Cold-temperature applications down to -112° F/ -80° C; cold storage; virology labeling, genetics labeling, DNA sequencing; steam sterilization	50° F 10° C
8000T Primary Blood Bag	TT	Polypropylene label with an all-temp acrylic adhesive; compliant with FDA 175.105	Primary blood bag labeling; IV bag labeling	-20° F -29° C
8000T Blood Bag	TT	Polypropylene label with a permanent acrylic adhesive	Secondary blood bag labeling. Should not be applied directly to blood bag	45° F 7° C
8000T Jewelry	TT	Polypropylene label with a permanent acrylic adhesive; provides high print quality and smudge resistance; available in custom colors	Ideal for jewelry and ring labels; safe to use in jewelry steamers and cleaners	45° F 7° C
8000D Jewelry	DT	Polypropylene label with a permanent acrylic adhesive; UV shield provides resistance to ultraviolet light; available in custom colors	Ideal for jewelry and ring labels; safe to use in jewelry cleaners	-10° F -23° C
Z-Slip	DT	Direct thermal paper tag combined with a clear polypropylene label featuring a permanent acrylic adhesive	Packing slip, invoice and compliance labeling	23° F -5° C
8000D Shelf Talker Clear	DT	Clear polypropylene label with a permanent acrylic adhesive that will withstand refrigeration	Features a clear adhesive area that aligns over the 8000D Shelf Label and can be removed without damaging it	35° F 2° C
8000D Shelf Talker/Label White	DT	Polypropylene tag with an all-temp permanent acrylic adhesive that will withstand refrigeration and freezers	Shelf label and shelf talker combination. Features a perforation to allow the talker to be removed, leaving the label	-20° F -29° C
8000D Shelf Label	DT	Matte polypropylene label with an all-temp acrylic adhesive. Features a varnish that protects the image, allowing the 8000D Shelf Talker Clear to be placed over it and removed cleanly	Shelf label that withstands refrigeration and freezing	-20° F -29° C
8000T Ultra High-Tack Matte	TT	Matte polyester label with a high-tack permanent acrylic adhesive for difficult-to-label surfaces	Asset and machinery tracking; labeling textured surfaces, plastic, painted or bare metal and wood; UID compliance	50° F 10° C
8000T RetroScan	TT	Silver gloss retro-flective polyester label with a permanent acrylic adhesive designed specifically for long-range scanning	Indoor warehouse bin/shelf/location labels for long-range scanning	45° F 7° C
8000T ESD Gloss	TT	Gloss polyester electrostatic dissipative label with a high-temp permanent acrylic adhesive; meets ESD S11.11 Surface Resistance Test requirements	Applications requiring resistance to electrostatic discharge; circuit boards, disk drives, and other sensitive electronic components	50° F 10° C
8000T Pattern Gloss	TT	Gloss polyester label with a pattern permanent acrylic adhesive to avoid residue on products	Jewelry tags, ring labels, small cable wiring	45° F 7° C
8000T Piggyback Clear Matte	TT	Piggyback matte polyester label with a permanent acrylic adhesive that can be over-laminated with a clear polyester liner	Asset management labeling; chemical containers; automotive labeling; UID compliance	50° F 10° C
8000T Void Gloss	TT	Gloss polyester label with a tamper-proof adhesive that leaves a "void" pattern when label is removed	Serial number plates; warranty/authenticity label; tamper-evident security labels; capital asset labeling	50° F 10° C
8000T Void Matte Silver	TT	Matte polyester label with a tamper-proof adhesive that leaves a "void" pattern when label is removed; UL acceptances	Serial number plates; warranty/authenticity label; tamper-evident security labels; capital asset labeling	50° F 10° C
8000T Checkerboard Gloss	TT	Silver gloss polyester label with a tamper-proof adhesive that leaves a checkerboard pattern when label is removed; maintains tamper evidence feature up to 176° F /80° C	Security and product authentication applications such as cellular phones	50° F 10° C

	Surfaces to be Labeled								Environment		Resistance						Suggested Ribbons	
Service Temperature	**Corrugate**	**Paper**	**Packaging Films**	**Most Plastics**	**Metal and Glass**	**Rough Surfaces**	**Curved Surfaces**	**Moist Surfaces**	**Indoors**	**Outdoors**	**Moisture**	**Abrasion**	**Chemical–Weak** (ie. Window Cleaner)	**Chemical–Moderate** (ie. Alcohol, Bleach)	**Chemical–Harsh** (ie. Gasoline, Oil)	**Chemical–Extreme** (ie. Acetone, Xylene)	**Standard Application– Weak and Moderate Chemicals**	**High Durability– Abrasion, Harsh and Extreme Chemicals**
-112° F to 248° F -80° C to 120° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	N/A	Image Lock
-112° F to 200° F -80° C to 93° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	NR	5555	3200
-320° F to 190° F -196° C to 88° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	NR	5095	5095
-112° F to 200° F -80° C to 93° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	NR	5095	5095
-65° F to 200° F -54° C to 93° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	NR	5555, 3200	5586
-40° F to 250° F -40° C to 120° C	●	●	NR	NR	●	●	●	●	●	●	●	●	●	●	●	NR	5555, 3200	5586
-40° F to 250° F -40° C to 121° C	●	●	NR	NR	●	●	●	●	●	●	●	●	●	●	●	NR	3200, 5586	5095
-40° F to 120° F -40° C to 49° C	●	●	NR	NR	●	●	●	●	●	NR	●	●	●	●	NR	NR	N/A	N/A
-20° F to 131° F -29° C to 55° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	N/A	N/A
-65° F to 131° F -54° C to 55° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-65° F to 131° F -54° C to 55° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-40° F to 150° F -40° C to 66° C	●	●	●	●	●	●	●	●	●	NR	●	●	●	NR	NR	NR	N/A	N/A
-20° F to 302° F -29° C to 150° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	5555, 3200	5586
-40° F to 300° F -40° C to 149° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	5095	5095
-40° F to 302° F -40° C to 150° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	5095	5100
-40° F to 300° F -40° C to 149° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	4100, 5095	5100
-40° F to 302° F -40° C to 150° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	●	2000, 2100, 5319	3200
-40° F to 158° F -40° C to 70° C	NR	NR	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	4100, 5095	5100
-40° F to 104° F -40° C to 40° C	NR	NR	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	5555, 3200	5586
-40° F to 176° F -40° C to 80° C	NR	NR	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	4100, 5095	5100

Labels

Performance Characteristics: • Recommended • Test In Your Application NR Not Recommended

	Product Name	Thermal Transfer (TT) Direct Thermal (DT)	Product Description	Applications	Minimum Application Temperature
Synthetic Labels	**Specialty** (continued)	White, synthetic labels designed for unique or challenging applications.			
	8000T High-Temp Matte	TT	Matte polyimide label with a high-temp permanent acrylic adhesive	High-heat applications such as PCB labeling, steel and automotive labeling, and work in process	40° F 4° C
	8000T Z-Endure™	TT	Special acrylic label with a permanent acrylic adhesive that offers 10-year outdoor durability	Vending machines, utility meters, signs, posts; outdoor tools/equipment that require extended outdoor exposure up to 10 years; UID compliance	50° F 10° C
	8000T Z-Destruct™	TT	Vinyl label with a permanent acrylic adhesive that destructs when label is removed	Serialized data and warranty labels; applications requiring destructible solution; ideal for high-value electronics	50° F 10° C
	8000T Vinyl Clear	TT	Clear matte vinyl label with a permanent acrylic adhesive that is highly flexible	Wrap around wire labeling; wrap around vial or tube labeling	50° F 10° C
	8000T Cling	TT	Gloss static cling vinyl label; also available in clear	Oil change, preventive maintenance and service. Temporary parking stickers.	32° F 0° C

Tags

Performance Characteristics: • Recommended • Test In Your Application NR Not Recommended

	Product Name	Thermal Transfer (TT) Direct Thermal (DT)	Product Description	Applications
Paper Tags	**Z-Perform**	Bright white, smooth paper facestock that provides the optimal balance between performance and price for industrial applications. Recommended for indoor use.		
	1000T Tag	TT	Uncoated paper tag available in 7.5 and 9.5 mil thickness	General-purpose ticketing; retail hang tags; inventory and shop floor tracking tickets
	1000D Tag	DT	Uncoated paper tag available in 5.3 mil thickness	General-purpose ticketing; retail hang tags; inventory and shop floor tracking tickets
	Z-Select	Premium, bright white, ultra-smooth paper facestock specially coated to provide optimal quality. Ideal for high-speed printing applications where print quality is important. Recommended for indoor use.		
	4000T Tag	TT	Paper tag available in 5.0, 7.0, and 9.0 mil thickness	General-purpose ticketing; retail hang tags; inventory control and shop floor tracking tickets
	4000D Tag	DT	Paper tag available in 5.3 and 7.0 mil thickness	General-purpose ticketing; shop floor tracking tickets; retail hang tag
Synthetic Tags	**PolyPro**	White, matte polypropylene facestock that provides high print quality and resistance to scratching and smearing; offers some flexibility for labeling curved surfaces. Thermal transfer materials recommended for applications that require up to 1-2 years outdoors; temperature exposure up to 250° F.		
	4000T Tag	TT	Polypropylene tag available in 7.0 and 8.5 mil thickness	Outdoor, general purpose tagging; wire marking, visitor passes, bin tags, pallets
	Z-Ultimate	White, gloss polyester facestock that provides outstanding print quality and unparalleled smear and scratch resistance. Offers good resistance to chemicals. Recommended for applications that require up to 3 years outdoors; temperature exposure up to 300° F.		
	4000T Tag	TT	Gloss polyester laminated tag available in 8 mil thickness	Tags requiring high environmental resistance; outdoor storage tags; water immersed tags, steel tags; high-quality hang tags
	Specialty	White, synthetic tags designed for unique or challenging applications.		
	8000T Light-Weight Tag	TT	Tyvek® olefin tag that provides tear resistance and durability; lightweight; available in 8.0 mil thickness	Sewn-in tags, lawn tags, garment tags; seat belts; greenhouse and nursery tags; staple-on tags; outdoor storage
	8000T Tuff Tag	TT	V-Max® polyolefin tag that provides tear strength and outdoor use up to 1-2 years; available in 7.0 mil thickness	Nursery tags; lumber tags; outdoor storage tags
	8000T Ultra-Tuff Tag	TT	Valéron® polyethylene tag that provides the highest tear resistance and durability; available in 4.0, 7.5, 9.5 mil thickness	Nursery tags; lumber tags; construction applications; outdoor storage tags
	8000T Nylon Tag	TT	Woven nylon tag that may be sewn into clothing; provides outstanding print quality; available in 5.7 mil thickness	Seat belt tagging; care tag applications

	Surfaces to be Labeled								Environment		Resistance						Suggested Ribbons	
Service Temperature	Corrugate	Paper	Packaging Films	Most Plastics	Metal and Glass	Rough Surfaces	Curved Surfaces	Moist Surfaces	Indoors	Outdoors	Moisture	Abrasion	Chemical–Weak (ie. Windowy Cleaner)	Chemical–Moderate (ie. Alcohol, Bleach)	Chemical–Harsh (ie. Gasoline, Oil)	Chemical–Extreme (ie. Acetone, Xylene)	Standard Application–Weak and Moderate Chemicals	High Durability–Abrasion, Harsh and Extreme Chemicals
-20° F to 392° F -29° C to 200° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	5555, 3200	5586, 5095
-40° F to 302° F -40° C to 150° C	●	●	●	●	●	●	NR	●	●	●	●	●	●	●	●	NR	4100, 5095	5100
-60° F to 250° F -51° C to 121° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	NR	3200, 5586	5095
-40° F to 176° F -40° C to 80° C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	NR	NR	5555, 3200	5586, 5095
-40° F to 200° F -40° C to 93° C	●	●	●	●	●	●	NR	NR	●	●	●	NR	●	●	●	●	3200 (white), 5319 (clear)	N/A

		Environment		Resistance						Suggested Ribbons	
Minimum Application Temperature	Service Temperature	Indoors	Outdoors	Moisture	Abrasion	Chemical–Weak (ie. Windowy Cleaner)	Chemical–Moderate (ie. Alcohol, Bleach)	Chemical–Harsh (ie. Gasoline, Oil)	Chemical–Extreme (ie. Acetone, Xylene)	Standard Application–Weak and Moderate Chemicals	High Durability–Abrasion, Harsh and Extreme Chemicals
N/A	-50° F to 200° F -46° C to 93° C	●	NR	NR	●	●	NR	NR	NR	2000, 5319	N/A
N/A	-40° F to 140° F -40° C to 60° C	●	NR	NR	●	●	NR	NR	NR	N/A	N/A
N/A	-40° F to 200° F -40° C to 93° C	●	NR	●	●	●	NR	NR	NR	2000, 2100, 5049, 5319	5555, 3200
N/A	-40° F to 140° F -40° C to 60° C	●	NR	●	●	●	NR	NR	NR	N/A	N/A
N/A	-40° F to 200° F -40° C to 93° C	●	●	●	●	●	●	●	●	3200, 5586	4100, 5095
N/A	-40° F to 200° F -40° C to 93° C	●	●	●	●	●	●	●	NR	4100, 5095	5100
N/A	-40° F to 200° F -40° C to 93° C	●	●	●	●	●	●	NR	NR	2000, 5319	3200
N/A	-70° F to 200° F -57° C to 93° C	●	●	●	●	●	●	NR	NR	5555, 3200	5586
N/A	-70° F to 200° F -57 C to 93° C	●	●	●	●	●	●	●	NR	5555, 3200	5586
N/A	-40° F to 302° F -40° C to 150° C	●	●	●	●	●	●	●	NR	N/A	Nylon Ribbon

Receipts

Performance Characteristics: • Recommended • Test In Your Application NR Not Recommended

	Product Name	Thermal Transfer (TT) Direct Thermal (DT)	Product Description	Applications
Paper Receipts	**Z-Perform**	Bright white, smooth paper facestock that provides the optimal balance between performance and price for industrial applications. Recommended for indoor use.		
	1000D Receipt	DT	Premium receipt paper that offers excellent quality at a low cost	General purpose mobile workforce applications including route accounting and field service
	Z-Select	Premium, bright white, ultra-smooth paper facestock specially coated to provide optimal quality. Ideal for high-speed printing applications where print quality is important. Recommended for indoor use.		
	3000D Receipt	DT	Receipt paper specially formulated to provide long-life durability and improved resistance over a standard receipt paper	Mobile workforce applications including route accounting and field service
	4000D Receipt	DT	Receipt paper featuring a topcoat that allows for exceptional long-life durability and resistance	Mobile workforce applications including route accounting and field service
	4000T Receipt	TT	Receipt paper available in 3.0 mil thickness	Staple-on tickets; plastic bag inserts; packing lists
	Specialty	White receipt paper designed for unique or challenging applications. Recommended for indoor use.		
	8000D High-Temp Receipt	DT	Receipt paper that provides temperature resistance up to 194° F/90° C; offers superior durability under fluorescent bulbs and partial UV exposure (through a window)	Mobile workforce applications that will be exposed to high temperature including e-citation
Synthetic Receipts	**PolyPro**	White, matte polypropylene facestock that provides high print quality and resistance to scratching and smearing.		
	4000D Receipt	DT	Polypropylene receipt paper that is waterproof and tearproof	Mobile workforce applications, such as e-citation, that will be exposed to moisture and require a durable receipt

Wristbands

Performance Characteristics: • Recommended • Test In Your Application NR Not Recommended

	Product Name	Thermal Transfer (TT) Direct Thermal (DT)	Product Description	Applications
Synthetic Wristbands	**Z-Band®**	Synthetic wristbands uniquely configured for optimal use in Zebra tabletop and desktop printers. Each material provides durability and security enhancements including security slits, void features, or clip closures.		
	Direct	DT	Polypropylene wristband with an adhesive tab for securement and a silver antimicrobial coating; tamper-evident slits, color-coding options; latex free	Patient identification in healthcare facilities; patron identification; tracking and access control; cashless point of sale at amusement parks, family entertainment centers, etc.
	QuickClip™	DT	Polypropylene wristband with silver antimicrobial coating and secure clip closure; color clips available; latex free	Patient identification in healthcare facilities; patron identification; tracking and access control; cashless point of sale at amusement parks, family entertainment centers, etc..
	Soft Infant	DT	Polypropylene wristband with a soft nylon lining delicate enough for fragile skin. Features an adhesive closure and our silver antimicrobial coating; latex free	Patient identification in healthcare facilities of infants with sensitive skin
	4000	TT	Thermal transfer, white, gloss polyester wristband with a permanent acrylic adhesive; latex free	Patient identification in healthcare facilities; patron identification; tracking and access control requiring enhanced durability; cashless point of sale at amusement parks, resorts, family entertainment centers, etc.

					Environment		Resistance						Suggested Ribbons	
Thickness (Mil)	Service Temperature	Archivability	Topcoated	Sensitivity	Indoors	Outdoors	Moisture	Abrasion	Chemical–Weak (ie. Windowv Cleaner)	Chemical–Moderate (ie. Alcohol, Bleach)	Chemical–Harsh (ie. Gasoline, Oil)	Chemical–Extreme (ie. Acetone, Xylene)	Standard Application–Weak and Moderate Chemicals	High Durability–Abrasion, Harsh and Extreme Chemicals
2.4 or 3.5	-40° F to 140° F -40° C to 60° C	10 years*	No	2.4 mil–Medium 3.5 mil–High	●	NR	NR	●	NR	NR	NR	NR	N/A	N/A
2.3	-40° F to 140° F -40° C to 60° C	25 years*	No	High	●	NR	●	●	●	NR	NR	NR	N/A	N/A
3.2	-40° F to 140° F -40° C to 60° C	25 years*	Yes	High	●	NR	●	●	●	NR	NR	NR	N/A	N/A
3.0	-40° F to 200° F -40° C to 93° C	10 years*	Yes	N/A	●	NR	●	●	●	NR	NR	NR	2000, 2100, 5049, 5319	5555, 3200
3.2	-40° F to 194° F -40° C to 90° C	20 years*	Yes	N/A	●	●	●	●	●	NR	NR	NR	N/A	N/A
3.8	-40° F to 140° F -40° C to 60° C	10 years*	Yes	High	●	●	●	●	●	NR	NR	NR	N/A	N/A

* The thermal image will remain legible for the archival life provided the image is fully developed on the recommended thermal printer and the document is stored with compatible materials under proper storage conditions

		Environment		Resistance						Suggested Ribbons	
Closure Type	Service Temperature	Indoors	Outdoors	Moisture	Abrasion	Chemical–Weak (ie. Windowv Cleaner)	Chemical–Moderate (ie. Alcohol, Bleach)	Chemical–Harsh (ie. Gasoline, Oil)	Chemical–Extreme (ie. Acetone, Xylene)	Standard Application–Weak and Moderate Chemicals	High Durability–Abrasion, Harsh and Extreme Chemicals
Adhesive	-40° F to 140° F -40° C to 60° C	●	●	●	●	●	●	NR	NR	N/A	N/A
Clip	-40° F to 140° F -40° C to 60° C	●	●	●	●	●	●	NR	NR	N/A	N/A
Adhesive	-40° F to 140° F -40° C to 60° C	●	●	●	●	●	●	NR	NR	N/A	N/A
Adhesive	-20° F to 300° F -29° C to 149° C	●	●	●	●	●	●	●	NR	4100, 5095	5100

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GSA#: GS-35F-0268N
P1021760 (12/09)