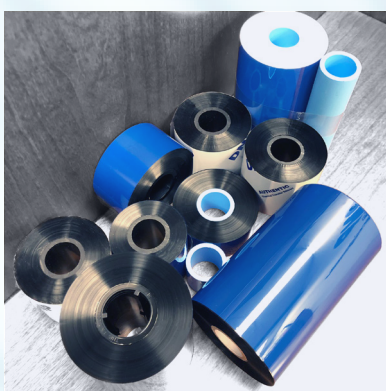
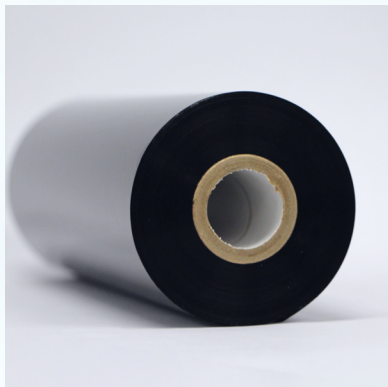


DNP



Product Brochure

THERMAL TRANSFER RIBBONS



INTRODUCTION

DNP Imagingcomm America has proudly manufactured thermal transfer ribbons in the United States since 1995. Our unwavering commitment to excellence and innovation has firmly established us as a global leader in this industry.

OUR JAPANESE HERITAGE

In 1876, Shueisha, the predecessor of Dai Nippon Printing Co., Ltd. (DNP), was established in Tokyo. The company’s inaugural project was printing a Japanese translation of Samuel Smiles’ “Self-Help.” This endeavor marked the beginning of Western-style book production in Japan and was a great success, laying the foundation for DNP’s future accomplishments.

Since then, DNP has grown into one of the world’s largest diversified printing and coating technology companies. Today, we employ nearly 40,000 people across 43 sales and production sites and are publicly traded on the Tokyo Stock Exchange.

OUR COMMITMENT

Our Mount Pleasant, Pennsylvania, facility is the headquarters for our Barcode Division. This comprehensive facility includes mixing, coating, slitting, engineering, research and development, warehousing, and our sales and support teams. We are committed to providing superior service, consistent quality, logistical expertise, and innovation. With a nearly perfect quality rating and the best lead times in the industry, DNP manufactures the finest thermal transfer ribbons in the world.

OUR FUTURE

DNP’s commitment to innovation is unwavering. Focusing on the future, we will continue contributing to our group’s Environmental Vision. We will seek new technologies to improve our production abilities while maintaining our quality benchmark. Our mission is to create ‘the basics of the future,’ fostering a better, sustainable society and improving the quality of life for all.



Service

Our knowledgeable and experienced Customer Service Representatives are unmatched in the industry, providing the highest level of responsiveness and support. Based at our headquarters in Mount Pleasant, Pennsylvania, they are available to assist with any questions or requests Monday through Friday, 8:30 AM to 5:00 PM EST.

Our unwavering commitment to exceptional customer service sets us apart. We provide proactive support and expert guidance, anticipating your needs and ensuring your business's success. With our dedicated team prioritizing your satisfaction and prosperity, you can confidently trust DNP to deliver the best service in the industry.

HOW CAN WE HELP?

Our customer service representatives can assist with:



PRODUCT
RECOMMENDATIONS



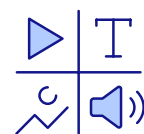
ORDER
TRACKING



PRICE
ESTIMATES



INVOICING



CUSTOMIZED
MARKETING



FREE
SAMPLES

COMMITTED TO EXCEPTIONAL SERVICE



No Annual
Purchase
Requirements

Enjoy the flexibility of no annual purchase requirements with DNP. Order based on your needs without the pressure of minimum quotas, ensuring cost-effective and efficient inventory management.



Highest Quality
Products

Our commitment to quality is visible in everything we do. From our ISO 9001:2015-certified facility to sourcing only the finest materials, DNP confidently delivers the best thermal transfer ribbons on the market.



48 Hour Order
Fulfillment

You can trust that DNP will handle your order with precision, ensuring seamless processing, swift shipping, prompt delivery, and accurate invoicing within 48 hours.



Exceptional
Service

Our knowledgeable team delivers exceptional, personalized service by thoroughly understanding your business, identifying growth opportunities, and collaborating with you on flawless execution.



4 Distribution
Centers

DNP operates four strategically placed distribution centers across the United States, providing industry-leading transit times for our most popular items to nearly every city in the U.S.



Made in
the USA

DNP's Mount Pleasant, Pennsylvania, facility serves as the headquarters for our Barcode Division, where we mix, coat, slit, engineer, research, develop, and warehouse our thermal transfer ribbons.



One Case
Order
Minimum

We understand that every business is different, and ordering multiple cases may not be suitable for all. That's why DNP has a one-case minimum order. No large orders are necessary.



Committed to
Sustainability

DNP is an ISO 14001 certified company dedicated to preserving the environment. We recover and reuse solvents and incorporate recycled materials in ribbon cores and packaging.

Call: 1-888-569-7222 or email: cdg@dnp.imgcomm.com

✓4085plus

✓200

✓300

✓295

VERSATILITY SERIES

The Versatility Series is your solution for reliable, high-quality thermal transfer ribbons. Our four trusted formulations, marked with 'V,' cover over 90% of your TTR printing needs. That's why we say the Versatility Series is Ready for Anything.

While most ribbons print on specific labelstocks at somewhat specific temperature and speed settings, the Versatility Series - V4085plus Resin-Enhanced Wax, V200 Versatile Wax-Resin, V300 Versatile Resin, and V295 Versatile TTO Wax-Resin offer superior compatibility with a broad range of label materials. Moreover, their innovative chemistry compensates for any inconsistencies in the label surfaces, ensuring they perform exceptionally well at various speed

and temperature settings. As a result, these formulations are the go-to choice for end-users who prioritize production uptime.

DNP's Vice President of Sales and Marketing, Mark Bjerkestrand, emphasizes, "While ribbons may look alike, our unique technology sets the Versatility Series apart, offering unparalleled performance and flexibility."

The next time a customer approaches you with the statement "I need a ribbon," don't waste time searching through a sea of TTR options – start by recommending the Versatility Series and be confident in their performance.

VERSATILITY SERIES

Simple to Sell. Ready for Anything.

Choosing the perfect thermal transfer ribbon should be simple and with DNP's Versatility Series, it is! Say goodbye to navigating through a sea of options, which can often be confusing. With Versatility Series, product selection is a breeze with just four products - **it's as easy as 1, 2, 3 (or 4)!**



SIMPLE

Forget what you know about the traditional TTR selection process. Quickly provide your customers with a TTR solution that both of you can feel good about.

- Providing multiple solutions with 4 proven products
- The Versatility Series covers most common industry applications



VERSATILE

Compatible with a wide range of substrates and surface materials, the Versatility Series adapts to diverse printing needs.

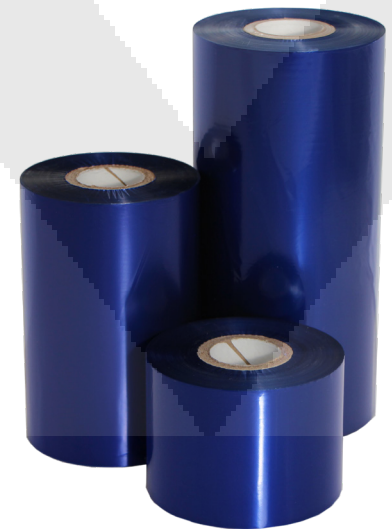
- Minimizes errors and lessens inventory
- Reduces production changeovers



CONSISTENT

The Versatility Series is designed, engineered, and proven to be Ready for Anything.

- Overcomes commonly occurring variations in substrate materials
- Exceptional performance from start to finish



Highest
Quality



Incredibly Well-
Engineered



Committed to
Sustainability

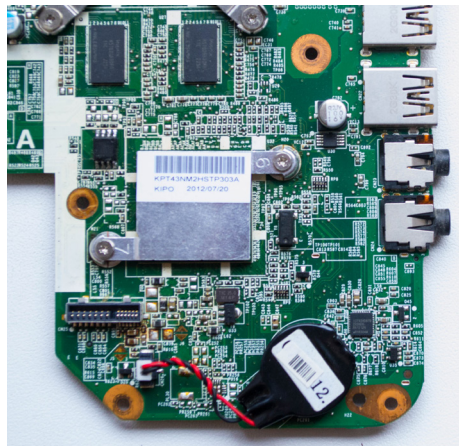


Made in
the USA



Exceptional
Customer
Service

COMMON APPLICATIONS

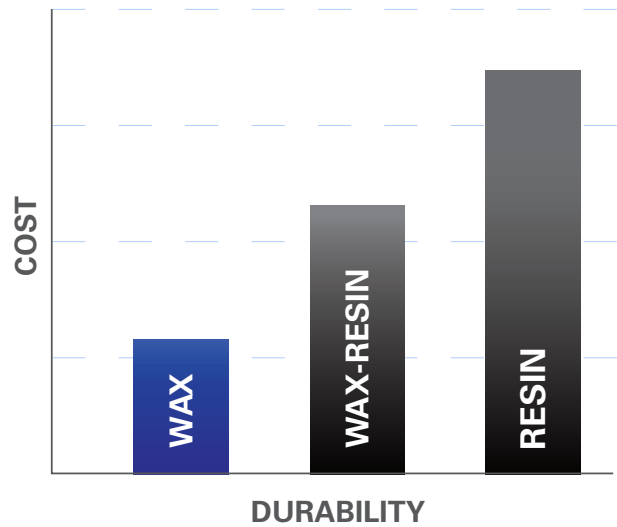




Wax thermal transfer ribbons are the most popular and commonly used for short-term and light-durability applications such as shipping, retail, and logistics.

DNP's wax ribbons provide excellent print quality for a wide range of applications. Engineered for outstanding performance, our wax formulations produce clear, scannable barcodes, keeping your operations running smoothly and your inventory easily traceable.

CATEGORY FEATURES



✓4085plus

Versatile Resin-Enhanced Wax

ABOUT: Recognized as the industry's leading wax since 2000, V4085plus features a high concentration of carnauba wax, which facilitates quick and uniform melting of the ink layer. This results in a complete, dark transfer with excellent image clarity, edge definition, and abrasion resistance.

COLOR: Black

RECOMMENDED APPLICATIONS:

- Appliances & Electrical
- Automotive
- Building & Industrial
- Fashion & Textiles
- Food & Beverage
- Horticulture
- Inventory & Logistics
- Medical & Healthcare
- Personal Care
- Pharmaceutical & Supplements

ADDITIONAL WAX FORMULATIONS

Half Inch Wax

DNP's Half Inch Wax ribbon is expertly formulated to operate within the temperature and speed range of 1/2" printers, all while delivering uniform coverage on a wide variety of substrates.



"I have been using **V4085plus** for my customers for as long as we've been in business. It is the best ribbon on the market for its use."
- Amy R.

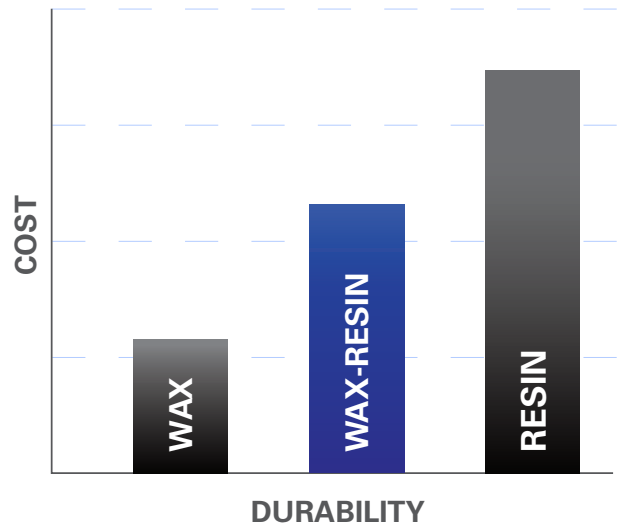


Wax-Resin

Wax-resin thermal transfer ribbons offer greater durability than wax ribbons, making them an excellent choice for printing labels exposed to varying temperatures, water, and UV rays. They are ideal for printing on synthetic substrates such as polypropylene and weatherproof materials.

DNP offers a variety of high-quality wax-resin formulations, ensuring clear, long-lasting prints. These formulations deliver superior durability and substrate compatibility compared to wax formulations.

CATEGORY FEATURES



✓200

Versatile Wax-Resin

ABOUT: V200 Versatile Wax-Resin thermal transfer ribbon prints variable information with exceptional small character clarity. This ribbon offers high resistance to scratching, smudging, and UV rays, making it ideal for horticultural tags, building materials, and a range of other applications.

COLOR: Black

RECOMMENDED APPLICATIONS:

- Appliances & Electrical
- Automotive
- Building & Industrial
- Fashion & Textiles
- Food & Beverage
- Horticulture
- Inventory & Logistics
- Medical & Healthcare
- Personal Care
- Pharmaceutical & Supplements

ADDITIONAL WAX-RESIN FORMULATIONS

- TRX-50**
General Purpose Wax-Resin
TRX-50 exhibits compatibility and durability with superior print quality on low-end synthetics. This wax-resin's unique ink formulation prints at low temperatures and high speeds while boasting unbeatable edge definition.
- TRX-55**
All-Purpose Wax-Resin
TRX-55 offers powerful resistance against smearing and chemicals while consistently producing sharp, reliable images at various speeds. This all-purpose wax-resin outperforms other ribbons in the most challenging environments.



When a leading manufacturer of lawn mower engines needed a ribbon for product identification, DNP's **V200 saved the day!**

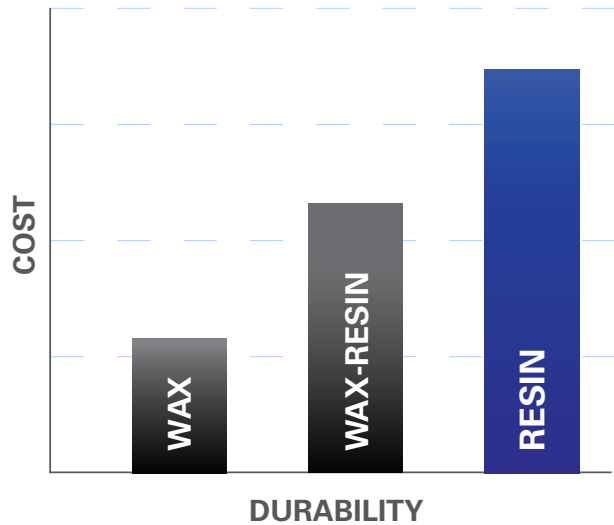


Resin

Resin thermal transfer ribbons are the top choice for demanding applications because of their exceptional durability. They are specially formulated to withstand extreme temperatures, harsh chemicals, and abrasive environments, making them ideal for challenging conditions.

DNP's range of resin formulations satisfies a wide variety of application requirements. Our resin thermal transfer ribbons offer exceptional durability against solvents and abrasions, and are unmatched in label compatibility.

CATEGORY FEATURES



✓300

Versatile Resin

ABOUT: V300 stands out as the most versatile resin thermal transfer ribbon on the market. Its unique properties enable the high-speed printing of variable information and low-energy settings. From paper to PET, V300 is the ideal choice for a wide range of substrates.

COLOR: **Black**

- RECOMMENDED APPLICATIONS:**
- Appliances & Electrical
 - Automotive
 - Building & Industrial
 - Chemicals
 - Fashion & Textiles
 - Food & Beverage
 - Horticulture
 - Inventory & Logistics
 - Medical & Healthcare
 - Personal Care
 - Pharmaceutical & Supplements

ADDITIONAL RESIN FORMULATIONS

R300
General Purpose Resin
R300 excels in abrasion and solvent resistance while using less print energy. This formulation demonstrates exceptional edge definition and produces dark images for significantly improved scan rates.

R316
Specialty Resin
R316 produces high-quality images on coated and synthetic paper substrates. It can withstand temperatures up to 171°C (339°F) and operates with low print energy settings, consistently delivering quality barcodes.

R395
Textile Resin
Designed for garment care applications, R395 Textile Resin is dry-clean and laundry-safe. This highly durable ribbon prints on acetate, nylon, polyester, satin, and taffeta while offering superior scratch, heat, and water resistance.

R510HF
Ultra Durable Resin
Halogen-free R510HF stands out as the toughest resin ribbon available. It is the only halogen-free resin ribbon that can confidently handle extreme environmental labeling with its unmatched scratch and solvent resistance.

R550
Extreme Durable Resin
R550 offers extreme resistance against most chemicals. Its ability to achieve smooth ink transfers at lower heat settings allows for printing small, crisp characters with precision.

TR4070
Classic Resin
TR4070 is ideal for compliance applications and eliminates the need for over-laminates. This formulation boasts a wide range of agency approval while delivering clean, durable prints every time.

Color Resin on next page

COLOR RESIN FORMULATIONS

Not all thermal transfer printing is black and white. That’s why DNP offers a range of color resins to assist with these unique applications.

R510C Durable Color Resin

R510C offers unmatched durability in four standard colors. The industry’s toughest color resin ribbon, it can handle extreme environmental conditions.

Blue
PMS 2935 C

Green
PMS 347 C

Red
PMS 185 C

Matte Silver
PMS 877 C

R510W Durable White Resin

R510W offers exceptional scratch and solvent resistance, providing clean, dense barcodes with unmatched edge definition.

White

TR3370 High Opacity White Resin

TR3370 High Opacity White Resin is specifically formulated for PVC shrink tubing and is highly resistant to ethanol and isopropanol. The ribbon can be printed on black, clear, and silver synthetic substrates and provides excellent scratch and smudge resistance.

White

VR301 Durable Metallic Color Resin

VR301 Durable Metallic Color Resin is available in metallic gold and silver. It’s an ideal choice for card printing applications due to its ability to endure harsh environmental conditions.

Gold

Silver



“V300’s quality is unmatched. There were no issues or configuration requirements. It just worked!”
- Basat K.

UL/cUL CERTIFICATIONS

DNP thermal transfer ribbon inks are compatible with over 60,000 papers, films, and label materials listed in UL’s Certification Directory for Recognized Component Printing Materials. It’s important to note that inks such as thermal transfer ribbons cannot be “UL-approved” on their own. UL only recognizes the ink once it is printed on a specific label material.

Below is a sample of our product’s UL/cUL listings with leading label manufacturers. For a complete list, visit am.dnpribbons.com.

	3M				AVERY DENNISON					FLEXCON	MACTAC	UPM RAFLATAC
	PGJ12.MH16411	PGJ12.MH18072	PGJ12.MH45276	PGJ12.MH49760	PGJ12.MH17205	PGJ12.MH20558	PGJ12.MH20580	PGJ12.MH26285	PGJ12.MH27538	PGJ12.MH16635	PGJ12.MH26726	PGJ12.MH26760
WAX												
V4085plus												
WAX / RESIN												
V200												
TRX-50										•		
TRX-55	•	•			•		•			•	•	
RESIN												
V300												
R300	•	•	•		•	•	•	•	•	•	•	•
R316	•	•								•		
R510C	•	•	•		•	•	•		•	•		
R510HF	•	•			•	•	•	•	•	•		
R510W	•				•					•		
R550	•	•			•		•	•		•	•	
TR3370					•					•		
TR4070	•	•		•	•	•	•	•	•	•	•	•
TR4500									•			

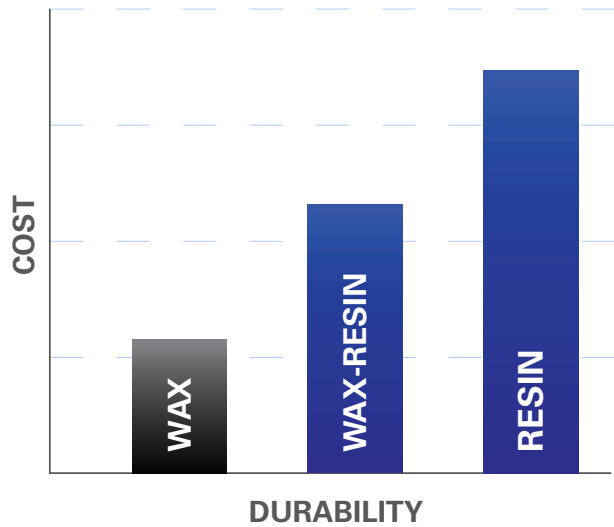


TTO

Near Edge thermal transfer printing operates at the speed of a packaging line. Thermal transfer overprint (TTO) ribbons print variable information directly onto the material, a method widely used in the food and beverage, medical and healthcare, and pharmaceutical industries, contributing to their efficiency and productivity.

DNP's TTO ribbons offer exceptional performance across a diverse range of materials, yielding crisp, clean images at high speeds. Designed to work seamlessly with top OEM printers such as Domino, Markem-Imaje, and Videojet, our ribbons ensure effortless integration and outstanding performance.

CATEGORY FEATURES



* TTO Ribbons are available in both Wax-Resin and Resin formulations



✓295

Versatile TTO Wax-Resin

ABOUT: V295 Versatile TTO Wax/Resin delivers superior performance with crisp, clean images at the speed of your packaging line. This highly versatile wax/resin ribbon adheres seamlessly to a wide range of substrates, making it an ideal drop-in replacement for OEM printer brands such as Domino, Markem-Imaje, and Videojet.

COLOR: **Black**

RECOMMENDED APPLICATIONS: **Food & Beverage** **Medical & Healthcare** **Pharmaceutical & Supplements**

ADDITIONAL TTO FORMULATIONS

M295C Specialty TTO Wax/Resin Color is widely acknowledged for its opacity. Available in **BRIGHT WHITE** and **SILVER**, it provides dramatically visible printed images onto multi-colored prime retail packages.


R390 TTO Resin outperforms the competition in abrasion and solvent resistance. It also offers precise edge definition, producing exceptionally durable and dense barcodes for flexible packaging applications.

R396 High-Speed Durable TTO Resin outperforms its competitors in abrasion resistance and is an ideal choice for applications such as parts packaging, medical devices, cosmetics, healthcare, and pharmaceuticals.

TR4500 Premium TTO Wax/Resin is the best ribbon on the market for thermal transfer printers, whether near-edge or flat-head. This ribbon produces dark images at high speeds and low energy settings on a wide range of substrates, from paper to low-end synthetics.

V390 High-Speed TTO Resin is your solution for durable printing on flexible packaging applications. This ribbon is highly compatible with a wide range of substrates, especially floodcoats and graphic-heavy packaging.

RECOMMENDED SUBSTRATES

 VERSATILITY SERIES			
✓4085 plus	✓200	✓300	✓295
Wax	Wax-Resin	Resin	TTO
★	★		
★	★	★	
★	★		
★	★		
★	★	★	
★	★	★	★
★	★	★	★
	★	★	
★	★	★	
★	★	★	
		★	★
		★	
		★	
		★	
★	★	★	★
★	★	★	★
★	★	★	★
★	★	★	
★	★		★

Half Inch	TRX-50	TRX-55	R300	R316
Wax	Wax-Resin	Wax-Resin	Resin	Resin
•	•	•		•
•	•	•		•
•		•		•
•		•		
	•	•		
•	•	•	•	•
•	•	•	•	•
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	•	•	•	•
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R395	R510C	R510HF	R510W	R550	TR3370	TR4070	VR301	M295C	R390	R396	TR4500	V390
Resin	Resin	Resin	Resin	Resin	Resin	Resin	Resin	TTO	TTO	TTO	TTO	TTO
											●	
											●	
											●	
											●	
											●	●
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*This overview is based on the most commonly used substrate materials. For a more in-depth list of substrates vs ribbon compatibility, please check the **Find Your Ribbon** tool on our website.

TROUBLESHOOTING

Whether you're experienced in thermal transfer or just getting started, DNP is ready to help. Our knowledgeable Product Support team specializes in providing technical assistance to our DNP Partners. They are available to quickly troubleshoot your thermal transfer ribbon issues and find a solution to get your printing back on track.

DNP's Product Support team answers a range of questions, from simple to complex. Here are **five commonly asked questions** and their answers:

1

What is causing my ribbon to break?

Under normal operating conditions, thermal transfer ribbons do not break. However, a label design with a large, concentrated area of ink can weaken the ribbon, leading to breakage. Keep this in mind when designing your label format.

2

What is the ratio of wax and resin in your ribbons?

All grades (wax, mid-range, and resin) contain both wax and resin components. The type of wax or resin determines a ribbon's performance characteristics rather than the ratio of each. DNP uses the highest quality ingredients to ensure precise melt points and premium performance.

3

What is the difference between a sample size and a full-size roll?

The only difference is the length of the ribbon, as the film and manufacturing processes are identical. Sample rolls are between 50 and 100 meters, while full-size rolls meet the OEM specification for length.

4

What are the recommended printer settings?

Begin by setting both the speed and heat to half of your printer's maximum range.

- If the print is too light – slowly increase the heat/decrease the speed.
- If the print is too dark – decrease the heat/increase the speed.

5

What is the ink transfer temperature?

The ink transfer temperature is not the temperature required to transfer ink to a label during printing, as commonly believed. Rather, it is the temperature at which a printed image will smudge. DNP provides the ink transfer temperature for each formulation on technical datasheets.

If you need technical assistance, contact our Product Support team at **techhelp@dnp.imgcomm.com**.

STORAGE CONDITIONS & WARRANTY

STORAGE CONDITIONS

Please adhere to the printer manufacturer's recommended environmental operating conditions to ensure optimal performance. Store thermal transfer ribbons at temperatures between 5°C (41°F) and 35°C (95°F) with a relative humidity of 20% to 85%. Avoid direct sunlight and exposure to the elements. Non-compliance with the recommended storage conditions may void the warranty.

PERFORMANCE GUARANTEE

DNP products are guaranteed to be free from defects in material and workmanship.

In the event a defect in material or workmanship is suspected, Purchaser must notify DNP promptly in writing and, upon request, return suspect product to DNP's facility in Mount Pleasant, Pennsylvania, freight prepaid. DNP's obligations shall be limited to the replacement of any such product proven to DNP's satisfaction to be defective. If, at DNP's sole discretion, any product replacement required pursuant to this warranty is not economically feasible or practicable, DNP may, in lieu of replacing such product, refund to Purchaser a pro rata portion of the purchase price of the defective product therefore paid by Purchaser to DNP (such pro rata portion to be based on the unusable portion of such defective product).

DNP shall not be responsible for any defect or deficiency in, or any damage whatsoever caused by or resulting from, misuse, accident, neglect, or unusual environmental conditions. Purchaser warrants and agrees that in placing any order with DNP for DNP's products it will not rely upon any representation or warranty of DNP or any director, officer, employee, agent, or representative of DNP not set forth in these Terms and Conditions. Warranties stated in these terms and conditions shall extend only to Purchaser and are not assignable.

IN OTHER WORDS...

We stand behind the performance of our products. If you encounter any issues with a DNP ribbon, contact our dedicated Customer Service team, and we'll make it right: 1-888-569-7222.

DNP



DNP Imagingcomm America Corporation

1001 Technology Drive | Mount Pleasant, PA 15666

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Email: info@dnp.imgcomm.com | Web: am.dnpribbons.com

