



DNP

a Dai Nippon Printing
company

**THERMAL TRANSFER
RIBBONS**

PRODUCT BROCHURE

DELIVERING VARIABLE PRINT EXCELLENCE

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INTRODUCTION

Whether you are searching for the answer to a challenging application or looking to broaden your Thermal Transfer Ribbon range, this product brochure is here to make your decision easier.

Discover DNP's services and product combinations, and challenge our in-house lab with your toughest applications today!

Delivering variable print excellence

Compliant and high-quality variable prints, such as barcodes, are essential in any coding requirement. DNP produces high-quality Thermal Transfer Ribbons that deliver just this. Our expertise is to find the ribbon that meets the exact requirements of your application and production system.

Peace-of-mind on variable code printing

Variable code printing should in no way compromise your production process and supply chain. The unique cost-to-risk ratio of Thermal Transfer Ribbons makes it a consumable that should perform, be reliable and available at any moment. The constant high quality of DNP Thermal Transfer Ribbons, combined with tailored service that delivers the ribbons to your exact needs, secures peace-of-mind on variable code printing.

Harmonising substrate, printer and ribbon

For each application, DNP has a ribbon. We work closely with printer and label manufacturers to ensure that the ribbon of choice performs optimally in your production. The main characteristics of the DNP ribbons are provided in the overview. Our experts are available to answer specific questions and help you with your thermal transfer print challenges.

BENEFITS OF WORKING WITH DNP



Quality guarantee

DNP Thermal Transfer Ribbons are produced using strict quality measurement systems to ensure high quality products to all our customers. All ribbons are guaranteed for life against any manufacturing defects in normal conditions of use and storage. Suitable for different regulations and compliances, most DNP Thermal Transfer Ribbons are approved for one or more of the following industry certifications: Isega, BS5609, REACH, RoHS, GHS and UL.



Quick production and delivery

With operations running 24 hours straight on weekdays, DNP ensures short lead times for both made-to-order and stock products. For standard qualities and size specifications order through DNP's stock programme, the Blue Book Programme. When you send in a Blue Book order before 12 o'clock (GMT +2:00) on working days, your order will be shipped out the same day. Should you need products tailored to your needs, we can produce made-to-order ribbons within about 5 working days.



In-house lab testing support

Testing new products can be challenging with production running on the side. This is why we offer to help you test products in DNP's own in-house lab. Let it be a challenging application that you need our help with or simply a ribbon and substrate combination, our Product Management Engineers are ready to take your requests at any time.



Broad portfolio of ribbons

With offices all around the world, DNP's R&D centres focus on constant improvement of current portfolio products and the development of new products for the Thermal Transfer Ribbon market. To accommodate for a wide variety of end applications in e.g. pharmaceuticals, food & beverage, chemicals, and automotive, DNP offers a broad portfolio of Thermal Transfer Ribbons.



Tailor made solutions

DNP offers great flexibility when it comes to ribbon sizes, colours, cores, leaders and trailers. As a standard, ribbons are provided with a DNP-leader and a universal trailer. However, there is a possibility to get ribbons tailored to your needs to fulfil your branding requirements.

PRODUCT OVERVIEW

PRODUCT OVERVIEW	Flat-head wax		Flat-head wax/resin				Flat-head resin						Near-edge wax/resin		Near-edge resin		Colour wax		Colour wax/resin	Colour resin						Specialty resin											
	Ribbon	TR4085plus® Resin enhanced wax	MP Wax Standard wax	M255 Premium wax/resin	M265 Ultra durable wax/resin	TR5080 Specialty wax/resin	TR6080 High performance wax/resin	V300 Versatility Defined resin	R300 General purpose resin	R510 Ultra durable resin	R316 Heat resistant resin	R550 Extremely durable resin	TR7541 Boiling resistant resin (also NE)	M295HD - High density print-on-packaging wax/resin	TR4500 Premium wax/resin	R390 General purpose resin	R396 High speed durable resin	TR3020 Transparent wax	TR302X General purpose colour wax	M295C - Print-on-packaging colour wax/resin	R300 Red General purpose colour resin	R410D-White Ultra opaque white resin	R510C Ultra durable colour resin	R510W Durable white resin	TR3370 High opacity white resin	VR301 Durable metallic colour resin	R395 Textile resin	UV transparent resin	UV black resin	Hologram resin	Scratch-off resin	Sintering resin					
Papers																																					
Vellum	✓	✓	✗	✗	✗	✗	✓	✓		✓				✗	✗			✗	✗															✓			
Uncoated paper	✓	✓	✗	✗	✗	✗	✓	✓		✓				✗	✗			✓	✓															✓			
Coated paper	✓	✓	✗	✗	✗	✗	✓	✓		✓				✗	✗			✓	✓																		
Gloss	✓	✓	✗	✗	✗	✗	✓	✓		✓				✗	✗			✓	✓																		
(UV)Varnished	✓		✗	✗ (UV)	✗		✓	✓		✓		✓ (UV)								✗	✗																
Pre-printed				✗	✗		✓	✓		✓				✗	✗																						
Flood-coated	✓		✗	✗	✗	✗	✓	✓		✓				✗	✗			✓	✓																		
Synthetic	✓		✗	✗	✗	✗	✓	✓		✓				✗	✗			✓	✓																		
Economic synthetics																																					
Polypropylene	✓	✓	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓		✗	✗			✓	✓																		
Polystyrene	✓		✗	✗	✗	✗	✓	✓	✓	✓	✓	✓		✗	✗			✓	✓																		
Polyethylene (LDPE)	✓	✓	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓		✗	✗			✓	✓																		
Polyethylene (HDPE)	✓	✓	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓		✗	✗			✓	✓																		
Polyester	✓		✗	✗	✗	✗	✓	✓	✓	✓	✓	✓		✗	✗			✓	✓																		
Polyimide							✓	✓	✓	✓	✓	✓		✗	✗			✓	✓																		
Top-coated Vinyl	✓	✓	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓						✓	✓																		
Vinyl							✓	✓		✓										✓	✓																
Specialty materials																																					
PVC (shrink tube)	✓			✗	✗	✗	✓	✓	✓	✓	✓	✓								✓	✓																
Valeron	✓		✗	✗	✗	✗	✓	✓	✓	✓	✓	✓								✓	✓																
Kimdura	✓		✗	✗	✗	✗	✓	✓	✓	✓	✓	✓								✓	✓																
Polyart	✓		✗	✗	✗	✗	✓	✓	✓	✓	✓	✓								✓	✓																
Tyvek®	✓		✗	✗	✗	✗	✓	✓	✓	✓	✓	✓								✓	✓																
Tyvek®brilion	✓		✗	✗	✗	✗	✓	✓	✓	✓	✓	✓								✓	✓																
(UV) Varnished	✓		✗	✗	✗	✗	✓	✓	✓	✓	✓	✓								✓	✓																
Kromekote							✓	✓	✓	✓	✓	✓																									
Kapton							✓	✓	✓	✓	✓	✓																									
Teslin®	✓		✗	✗	✗	✗	✓	✓	✓	✓	✓	✓		✗	✗					✓	✓																
Polycarbonate (Cards)							✓	✓	✓	✓	✓	✓																									
(Untreated) rubber							✓	✓	✓	✓	✓	✓																									
ABS							✓	✓	✓	✓	✓	✓																									
Aluminium							✓	✓	✓	✓	✓	✓																									
Textiles																																					
Coated textile							✓	✓	✓	✓	✓	✓																									
Synthetic films							✓	✓	✓	✓	✓	✓																									
Woven fabrics							✓	✓	✓	✓	✓	✓																									
(Nylon) Taffeta	✓		✗	✗	✗		✓	✓	✓	✓	✓	✓								✓	✓																
Satin				✗	✗		✓	✓	✓	✓	✓	✓																									
Nylon							✓	✓	✓	✓	✓	✓		✗	✗																						
Polyester							✓	✓	✓	✓	✓	✓																									
Acetate							✓	✓	✓	✓	✓	✓																									



FLAT-HEAD WAX

DNP

TR4085PLUS® RESIN ENHANCED WAX

ALL-ROUND WAX RIBBON FOR VARIOUS LABEL MATERIALS TO MINIMISE PRINT PRODUCTION CHANGE-OVERS

Performance characteristics

- High printing speed
- Excellent optical density (Macbeth)
- Abrasion and smudge resistance
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Wax (resin enhanced)
Colour	Black
Total thickness	8.0 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	3.2 ± 0.2µm

Recommended industries

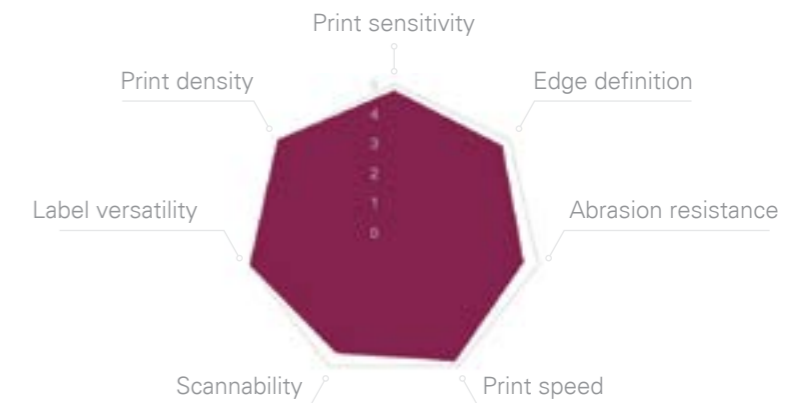


Recommended substrates

Paper	
Vellum	● ● ●
Uncoated paper	● ● ●
Coated paper	● ● ●

Economic synthetics	
Polypropylene	● ● ○
Polyethylene	● ● ○
Polyester	● ● ○

Spider diagram features of TR4085plus®



MP WAX

STANDARD WAX

ECONOMY WAX FOR GENERAL PURPOSE APPLICATIONS

Performance characteristics

- Excellent optical density (Macbeth)
- High printing speed
- Abrasion and smudge resistance
- Halogen-free
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Wax
Colour	Black
Total thickness	7.8 ± 0.6µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	3.0 ± 0.3µm

Recommended industries



FLAT-HEAD WAX/RESIN

DNP

Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7

M255

PREMIUM WAX/RESIN

ALL-ROUND WAX/RESIN RIBBON FOR MANY DIFFERENT LABELS TO MINIMISE PRINT PRODUCTION CHANGE-OVERS

Performance characteristics

- High printing speed
- High print sensitivity
- Medium heat resistance
- Excellent optical density (Macbeth)
- Broad print range
- High scannability
- Good chemical resistance
- Abrasion & smudge resistance
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Wax/Resin
Colour	Black
Total thickness	8.3 ± 0.3µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	3.1 ± 0.2µm

Recommended industries

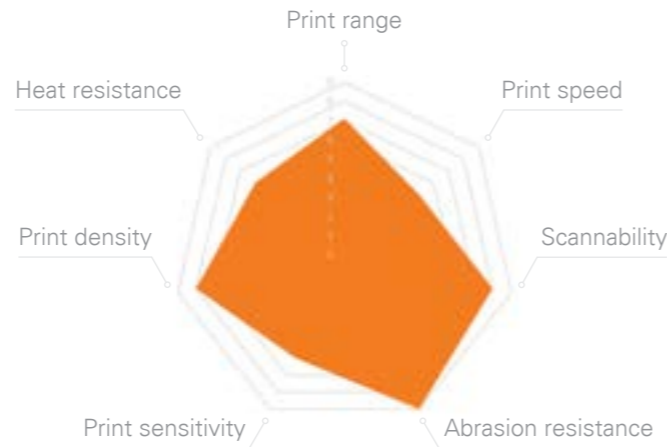


Recommended substrates

Paper	Compatibility
Vellum	● ● ●
Uncoated paper	● ● ●
Coated paper	● ● ●

Economic synthetics	Compatibility
Polypropylene	● ● ○
Polyethylene	● ● ○
Polyester	● ● ○

Spider diagram features of M255



TR5080

SPECIALTY WAX/RESIN

ENTRY-LEVEL WAX/RESIN RIBBON FOR MANY DIFFERENT TYPES OF LABEL SUBSTRATES

Performance characteristics

- Ideal for printing on spot-coated and flood-coated labels
- Eliminates the cost of special varnishes
- Excellent edge definition for dark, dense images (400 dpi and up) and improved scan rates
- Prints at high printing speeds (12 IPS) delivering crisp, rotated barcodes
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Wax/Resin
Colour	Black
Total thickness	8.0 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	3.2 ± 0.2µm

Recommended industries



TR6080

HIGH PERFORMANCE WAX/RESIN

HIGH-SPEED PRINTABLE WAX/RESIN RIBBON FOR ENHANCED EFFICIENCY

Performance characteristics

- Prints on a wide variety of substrates from rough label stocks to high-gloss paper
- Prints at high printing speeds (up to 12 IPS)
- Medium heat resistant
- Excellent edge definition for dark, dense images and improved scan rates
- Enhanced abrasion & smudge resistance
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Wax/Resin
Colour	Black
Total thickness	8.2 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	3.4 ± 0.2µm

Recommended industries



Recommended substrates
Find out the recommended substrates for each ribbon on pages 6/7

M265

ULTRA DURABLE WAX/RESIN

HIGH-END WAX/RESIN IDEAL FOR USAGE ON PREPRINTED LABELS OFFERING HIGH ABRASION AND HEAT RESISTANCE







Performance characteristics

- Extreme abrasion resistance
- Extreme temperature resistance
- Prints up to 12 IPS
- Combines the print sensitivity of a wax/resin with the resistance of resins
- Prints both on flat-head and near-edge printers
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Wax/Resin
Colour	Black
Total thickness	6.2 ± 0.6µm
Base film thickness	4.5 ± 0.5µm
Ink thickness	1.6 ± 0.5µm

Recommended industries

 Automotive	 Food & beverage	 Health & beauty	 Pharma & healthcare
 Outdoor	 Electronics		



Recommended substrates
Find out the recommended substrates for each ribbon on pages 6/7

V300

VERSATILITY DEFINED RESIN

THE MOST VERSATILE RESIN PRINTING ON A WIDE VARIETY OF SUBSTRATES WHILE MAINTAINING HIGH DURABILITY

Performance characteristics

- High substrate versatility
- High print sensitivity
- Wide print range
- Outstanding chemical durability such as IPA, ethanol, oil
- Excellent blocking resistance allowing for no issues with ink transferring to the back coating
- High abrasion resistance
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Resin
Colour	Black
Total thickness	5.8 ± 0.8 µm
Base film thickness	4.5 ± 0.4 µm
Ink thickness	1.3 ± 0.4 µm

Recommended industries

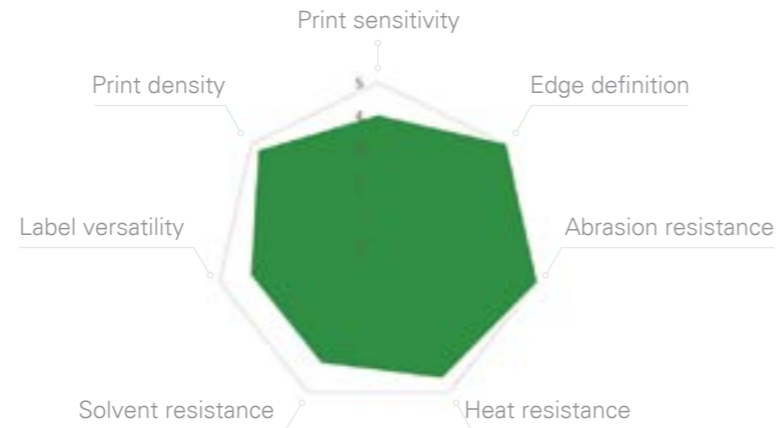


Recommended substrates

Paper	Performance
Vellum	● ● ○
Uncoated paper	● ● ○
Coated paper	● ● ●

Economic synthetics	Performance
Polypropylene	● ● ●
Polyethylene	● ● ●
Polyester	● ● ●

Spider diagram features of V300



R300

GENERAL PURPOSE RESIN

ALL-ROUND RESIN FOR LASTING AND RESISTANT PRINT IN DEMANDING APPLICATIONS

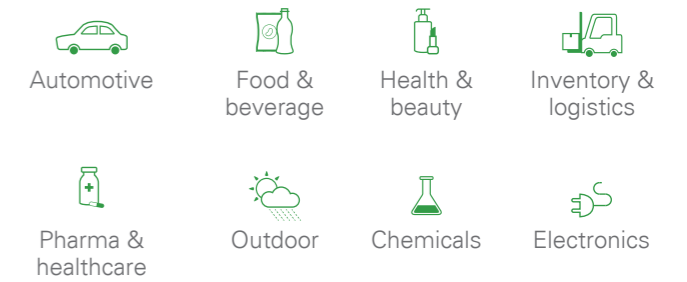
Performance characteristics

- Heat resistance up to 199°C
- Excellent print quality at high printing speeds using less print energy
- Excellent durability and chemical resistance
- Very economical resin with DNP's unmatched abrasion resistance
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Resin
Colour	Black
Total thickness	6.0 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	1.2 ± 0.2µm

Recommended industries



R316

HEAT RESISTANT RESIN

EXTREMELY HEAT RESISTANT RESIN PARTICULARLY IDEAL FOR AUTOCLAVE APPLICATIONS

Performance characteristics

- Heat resistance up to 220°C
- Industry leading in edge definition for clean, optical density (Macbeth)
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Resin
Colour	Black
Total thickness	7.8 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	3.0 ± 0.2µm

Recommended industries



Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7

R510^(HF)

ULTRA DURABLE RESIN

HIGH DURABILITY RESIN DESIGNED FOR HARSH ENVIRONMENTS OFFERING HIGH CHEMICAL SOLVENT RESISTANCE

Performance characteristics

- Heat resistant up to 250°C
- Unique solvent resistance
- Excellent optical density (Macbeth) ensuring sharp edge definition
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Resin
Colour	Black
Total thickness	7.5 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	2.7 ± 0.2µm

Recommended industries



TR7541

BOILING RESISTANT RESIN

RESIN RIBBON RESISTANT TO BOILING WATER FOR FOOD & BEVERAGE APPLICATIONS

Performance characteristics

- Boiling water durability
- Prints on extremely smooth labels below 40 dyne
- Abrasion resistant
- Suitable for flat-head and near-edge printers
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Resin
Colour	Black
Total thickness	6.6 ± 0.8µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	1.8 ± 0.5µm

Recommended industries



R550

EXTREMELY DURABLE RESIN

PREMIUM RESIN FOR HIGH CHEMICAL AND HEAT RESISTANT APPLICATIONS

Performance characteristics

- Heat resistance up to a continuous temperature of 350°C
- Unique high abrasion and solvent resistance
- Excellent edge definition for dark, dense images and improved scan rates
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Resin
Colour	Black
Total thickness	6.5 ± 0.8µm
Base film thickness	4.5 ± 0.4µm
Ink thickness	2.0 ± 0.5µm

Recommended industries



Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7

NEAR-EDGE WAX/RESIN

DNP

M295HD

HIGH DENSITY PRINT-ON-PACKAGING WAX/RESIN

DROP-IN COMPATIBLE, HIGH-SPEED PRINTING WAX/RESIN FOR FLEXIBLE PACKAGING APPLICATIONS

Performance characteristics

- Extremely high print speeds up to 32 IPS (800 mm per second)
- High image density at standard heat settings
- Excellent rub resistance against oil and grease
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Wax/Resin
Colour	Black
Total thickness	6.3 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	1.5 ± 0.2µm

Recommended industries

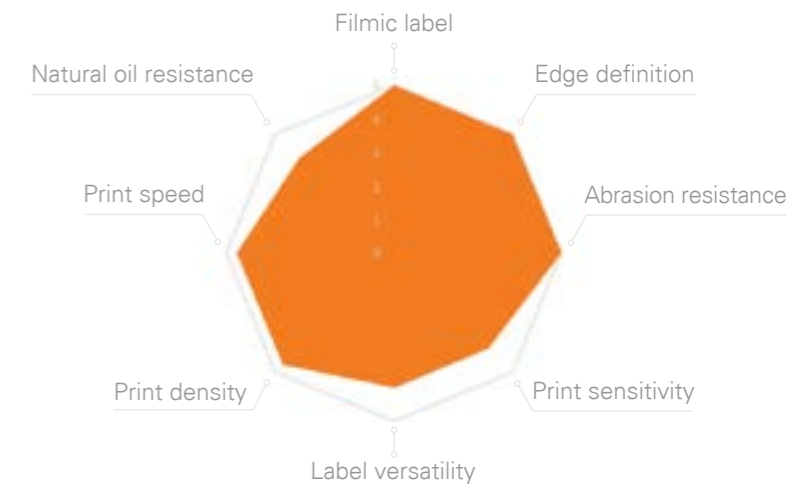


Recommended substrates

Paper	
Vellum	○ ○ ○
Uncoated paper	○ ○ ○
Coated paper	● ● ○

Economic synthetics	
Polypropylene	● ● ●
Polyethylene	● ● ●
Polyester	● ● ●

Spider diagram features of M295HD



TR4500

PREMIUM WAX/RESIN

EASILY PRINTABLE NEAR-EDGE WAX/RESIN RIBBON FOR ROUGH AND SMOOTH MATERIALS

Performance characteristics

- Excellent edge definition for dark, dense images and improved scan rates
- Prints excellent images on a wide variety of label and tag stocks
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Wax/Resin
Colour	Black
Total thickness	8.2 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	3.4 ± 0.2µm

Recommended industries

 Food & beverage	 Health & beauty	 Inventory & logistics	 Pharma & healthcare
 Outdoor	 Retail		

NEAR-EDGE RESIN
DNP

Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7

R390

GENERAL PURPOSE RESIN

ALL-ROUND NEAR-EDGE RESIN OFFERING HIGH HEAT AND SOLVENT RESISTANCE

Performance characteristics

- Excellent print quality at high printing speeds
- Increased durability across a wide range of resin applications
- High substrate versatility
- Excellent edge definition for dark, dense images and improved scan rates
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Resin
Colour	Black
Total thickness	6.0 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	1.2 ± 0.2µm

Recommended industries



R396

HIGH SPEED DURABLE RESIN

EASY-TO-PRINT, HIGH-SPEED COMPATIBLE RESIN FOR DURABLE FLEXIBLE PACKAGING APPLICATIONS

Performance characteristics

- Extremely high print speeds up to 32 IPS (660mm per second)
- Excellent edge definition for dark, dense images and improved scan rates
- Abrasion & smudge resistance resistance
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Resin
Colour	Black
Total thickness	5.45 ± 0.9µm
Base film thickness	4.0 ± 0.5µm
Ink thickness	1.45 ± 0.4µm

Recommended industries



Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7

COLOUR WAX

DNP

TR3020

TRANSPARENT WAX

SPECIALTY WAX FOR MAKING ROUGH SURFACES THERMAL TRANSFER PRINTABLE OR LAMINATING PRINT FOR EXTRA PROTECTION

Performance characteristics

- Improves the resistance of printed images
- Prints up to 12 IPS
- Can improve the smoothness and printability of label materials
- Halogen-Free

Technical Product Information

Ink	Wax
Colour	Transparent
Total thickness	8.2 ± 0.9µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	3.4 ± 0.6µm

Recommended industries



TR3021, 22, 23

GENERAL PURPOSE COLOUR WAX

ALL-ROUND COLOUR WAX SPECIALTY APPLICATIONS

Performance characteristics

- Provides excellent print clarity and is highly smudge resistant
- Prints at high printing speeds (12 IPS) delivering crisp, rotated bar codes
- Excellent edge definition for dark, dense images and improved scan rates
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free (TR3022 Blue)

Technical Product Information

Ink	Wax
Colour	Red, Blue, Green
Total thickness	8.4 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	3.6 ± 0.2µm

Recommended industries



Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7

COLOUR WAX/RESIN

DNP

M295C

PRINT ON PACKAGING COLOUR WAX/RESIN

SPECIALTY COLOURED NEAR-EDGE WAX/RESIN FOR HIGH-SPEED PRINTABILITY ON FLEXIBLE PACKAGING

Performance characteristics

- Extremely high print speeds up to 20 IPS (508mm per second)
- Excellent edge definition for dark, dense images and improved scan rates
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Wax/Resin
Colour	Silver, Bright White
	●
Total thickness	Silver 6.1 ± 1.0µm
	Bright White 7.5 ± 1.3µm
Base film thickness	4.5 ± 0.5µm
Ink thickness	Silver 1.6 ± 0.5µm
	Bright White 3.0 ± 0.8µm

Recommended industries



COLOUR RESIN

DNP

Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7

R300 RED

GENERAL PURPOSE COLOUR RESIN

SPECIALTY COLOUR RESIN FOR SYNTHETIC LABEL PRINTING APPLICATIONS REQUIRING DURABILITY


Performance characteristics

- Excellent print quality at high speeds using less print energy
- Excellent durability and chemical resistance
- Extensive substrate versatility expanding application options
- Unbeatable edge definition for red, dense images and improved scan rates
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Resin
Colour	Red
	
Total thickness	6.0 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	1.2 ± 0.2µm

Recommended industries



R410D-WHITE

ULTRA OPAQUE WHITE RESIN

DOUBLE LAYER WHITE RESIN DESIGNED FOR DARK MATERIAL PRINTING FOR DURABLE APPLICATIONS

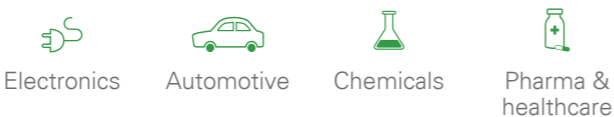
Performance characteristics

- Excellent optical density (Macbeth)
- Excellent opacity
- Excellent scratch resistance
- Good solvent resistance
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Resin
Colour	White
Total thickness	11.2 ± 1.0µm
Base film thickness	4.8 ± 0.3µm
Coated layers	6.4 ± 0.7µm

Recommended industries



R510C


ULTRA DURABLE COLOUR RESIN

SPECIALTY COLOUR RESIN FOR APPLICATIONS EXPOSED TO DEMANDING ENVIRONMENTS

Performance characteristics

- High solvent durability
- Excellent optical density (Macbeth) printing ensuring high edge definition
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Colour: Red, Blue, Green, Matte Silver,


Recommended industries



R510W

DURABLE WHITE RESIN

SINGLE LAYER WHITE RESIN DESIGNED FOR DARK MATERIAL PRINTING FOR HIGHLY DURABLE APPLICATIONS

Performance characteristics

- Industry leading in edge definition for clean, durable, and dense bar codes
- Resistance to ethanol and isopropanol
- Abrasion and smudge resistance
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Resin
Colour	White
Total thickness	9.3 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink Thickness	4.5 ± 0.2µm

Recommended industries



Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7

TR3370

HIGH OPACITY WHITE RESIN

WHITE OPAQUE RESIN DESIGNED FOR DARK MATERIAL PRINTING FOR HIGH DURABILITY APPLICATIONS

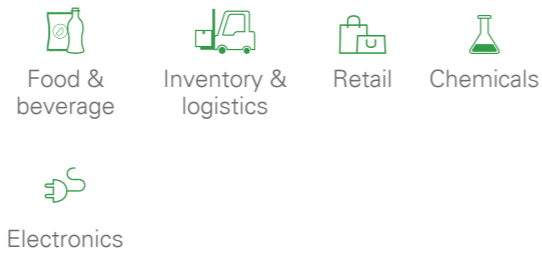
Performance characteristics

- An opaque ribbon that prints well on black, clear, and silver synthetic substrates
- Specially formulated for shrink tubing applications
- Resistant to ethanol and isopropanol
- Abrasion and smudge resistance
- Anti-static back coating for easy handling and extended printhead life
- Halogen-free

Technical Product Information

Ink	Resin
Colour	White
Total thickness	9.6 ± 0.5µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	4.8 ± 0.2µm

Recommended industries



VR301



DURABLE METALLIC COLOUR RESIN

SPECIALTY METALLIC RESIN FOR SMOOTH SURFACES REQUIRING HEAT AND CHEMICAL SOLVENT RESISTANCE

Performance characteristics

- Abrasion and smudge resistance
- Excellent optical density (Macbeth)
- Extreme solvent resistance
- Anti-static back coating for easy handling and extended printhead life

Technical Product Information

Ink	Resin
Colour	Metallic Gold or Silver
	 
Total thickness	7.15 ± 0.7µm
Base film thickness	5.7 ± 0.3µm
Ink thickness	1.45 ± 0.4µm

Recommended industries



Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7



R395

TEXTILE RESIN

ESPECIALLY DESIGNED FOR CARE FABRIC APPLICATIONS REQUIRING HEAT, WATER AND STEAM RESISTANCE

Performance characteristics

- Dry clean and laundry safe
- Heat and steam resistance
- Water resistance
- Abrasion and smudge resistance
- Printable on both flat-head and near-edge printers
- Halogen-free

Technical Product Information

Ink	Resin
Colour	Black
Total thickness	6.3 ± 0.5µm
Base film thickness	4.5 ± 0.5µm
Ink thickness	1.8 ± 0.5µm

Recommended industries



UV BLACK RESIN

UNIQUE R550 FORMULATION-BASED HIGHLY DURABLE ULTRA VIOLET BLACK RESIN FOR ANTI-COUNTERFEIT APPLICATIONS

Performance characteristics

- Print glows under UV-blacklight
- Heat resistant up to 250°C
- High abrasion and solvent resistance
- Excellent edge definition for dark, dense images and improved scan rates
- Anti-static back coating for easy handling and extended printhead life

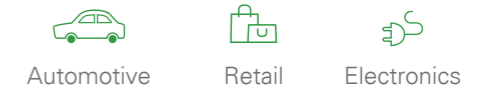
Special storage conditions

Avoid any light (both sunlight and electric light) as much as possible

Technical Product Information

Ink	Resin
Colour	Black
Total thickness	6.5 ± 0.8µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	1.7 ± 0.5µm

Recommended industries



UV TRANSPARENT RESIN

UNIQUE R300 FORMULATION-BASED HIGHLY DURABLE CLEAR RESIN FOR ANTI-COUNTERFEIT APPLICATIONS

Performance characteristics

- Print glows under UV-blacklight
- Good compatibility with filmic labels or cards
- Printable on glossy paper
- Printable on flat-head and near-edge printers

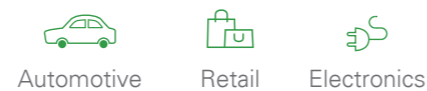
Special storage conditions

Avoid any light (both sunlight and electric light) as much as possible

Technical Product Information

Ink	Resin
Colour	Transparent
Total thickness	6.2 ± 0.8µm
Base film thickness	4.8 ± 0.3µm
Ink thickness	1.4 ± 0.5µm
Light wave length	365 nm

Recommended industries



HOLOGRAM RESIN

SPECIALTY RESIN RIBBON FOR ANTI-COUNTERFEIT PURPOSES FOR HIGHLY DURABLE APPLICATION

Technical Product Information

Ink	Resin
Colour	Rainbow, large dots
Total thickness	7.4 ± 0.8µm
Base film thickness	6.0 ± 0.4µm
Ink thickness	1.3 ± 0.5µm

Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7

SINTERING RESIN

SPECIALTY SINTERING RIBBON FOR EXTREME HEAT RESISTANCE OF UP TO 1200°C AFTER HAVING GONE THROUGH THE SINTERING PROCESS

Technical Product Information

Ink	Special
Colour	Black
Total thickness	10.1 ± 1.6µm
Base film thickness	4.65 ± 0.4µm
Ink thickness	5.45 ± 1.2µm

Special handling conditions

The printed substrate achieves high resistance only once exposed to at least 425°C to ensure the sintering process has taken place.

SCRATCH-OFF RESIN

EASY TO SCRATCH OFF RESIN RIBBON FOR SPECIALTY APPLICATIONS LIKE LOTTERY TICKETS AND GIFT CARDS

Technical Product Information

Ink	Special
Colour	Black on silver
	●
Total thickness	10.1 ± 1.6µm
Base film thickness	6.0 ± 0.5µm
Ink thickness	4.45 ± 1.0µm

Recommended substrates

Find out the recommended substrates for each ribbon on pages 6/7

PURCHASING GUIDE

Request a free sample

Are you interested in trying out one of our Thermal Transfer Ribbons? You can request a free sample via email or the following QR code below.



Order DNP Thermal Transfer Ribbons

Are you a first-time customer and you wish to send in an order to us? You can send your request to sales@dnp.imgcomm.eu and one of our sales representatives will get in touch with you regarding your order.

Buy stock items via the Blue Book Programme

Is lead time a key factor for you? With our Blue Book Programme orders received before 12 o'clock (GMT +1:00) are shipped out the same day! The Blue Book Programme contains standard qualities and size specifications. You can find a list of our Blue Book items on our website here:

eu.dnpribbons.com/products/blue-book or by following the QR code below.



How to order from Blue Book?

- 1 Place an order before 12 o'clock (GMT +1:00) for same day shipment.
- 2 Send your Blue Book order in a separate e-mail from your made-to-order request.
- 3 Your products will be prepared and shipped out that day.

Please note that delivery costs may vary per country. In case you would like your order to be sent by drop shipment an additional cost of €20 per delivery applies.

Consult with our industry experts

Do you still have unanswered questions? Get in touch with your designated Area Sales Manager, call our general sales line (+31 23 553 3060) to talk to one of our knowledgeable specialists or send us an email to sales@dnp.imgcomm.eu.

Supplied via resellers, DNP partner distributors and OEM's

DNP Thermal Transfer Ribbons are available for purchase via a network of partner distributors, OEM's and resellers. Should you be interested in becoming one of the aforementioned partners, please do not hesitate to contact us.

Are you a ribbon user yourself and would like to try out or purchase one of our DNP Thermal Transfer Ribbons? Our team is ready to answer your questions and needs, to discuss your projects and, if required, point you to the most suitable DNP reseller.

COMPLIANCE

OVERVIEW

Ribbon	Reach	ISO 9001 / 14001 /18001	RoHS	ISEGA	Halogen-free	GHS / BS5609	FDA (GRAS)	BPA-free	Conflict - mineral free	Latex-free	UL
TR4085plus® Resin enhanced wax	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
MP Wax Standard wax	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
M255 Premium wax/resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	
M265 Ultra durable wax/resin	✓	✓	✓	✓			✓	✓	✓	✓	
TR5080 Specialty wax/resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
TR6080 High performance wax/resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	
V300 Versatility Defined resin	✓	✓	✓	✓			✓	✓	✓	✓	
R300 General purpose resin	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
R510 Ultra durable resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
R316 Heat resistant resin	✓	✓	✓				✓	✓	✓	✓	✓
R550 Extremely durable resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
TR7541 Boiling resistant resin (also NE)	✓	✓	✓	✓	✓		✓	✓	✓	✓	
M295HD High density print-on-packaging wax/resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	
TR4500 Premium wax/resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
R390 General purpose resin	✓	✓	✓	✓			✓	✓	✓	✓	
R396 High speed durable resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	
TR3020 Transparent wax	✓	✓	✓		✓		✓	✓	✓	✓	
TR302X General purpose colour wax	✓	✓	✓		✓ (Blue)	✓ (Red)	✓	✓	✓	✓	
M295C Print-on-packaging colour wax/resin	✓	✓	✓		✓ (White)		✓	✓	✓	✓	✓
R300 Red General purpose colour resin											
R410D-White Ultra opaque white resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
R510C Ultra durable colour resin	✓	✓	✓			✓ (Red)	✓	✓	✓	✓	✓*
R510W Durable white resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
TR3370 High opacity white resin	✓	✓	✓		✓		✓	✓	✓	✓	✓
VR301 Durable metallic colour resin	✓	✓	✓				✓	✓	✓	✓	
R395 Textile resin	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
UV transparent resin	✓	✓	✓				✓	✓	✓	✓	
UV black resin											
Hologram resin	✓	✓	✓				✓	✓	✓	✓	
Scratch-off resin											
Sintering resin	✓	✓	✓				✓	✓	✓	✓	

*Blue, Green, Red

The information in this brochure was obtained in DNP laboratories. Measured values may vary slightly when tested in a different environment. Information contained within this document is subject to change without notification.

To enhance knowledge and culture through letterpress printing, Dai Nippon Printing Co., Ltd.'s predecessor, Shueisha was founded in the Ginza district of Tokyo in 1876. Since then, Dai Nippon Printing (DNP) has become one of the world's largest diversified printing/coating technology companies.

Today, Dai Nippon Printing employs over 38,600 people at its plants and sales offices in Asia, Europe, North America and Oceania. DNP's operations include commercial printing, packaging, decorative materials, electronics, business forms and information media supplies.

In the early 1980s, Dai Nippon Printing was one of the pioneers in Thermal Transfer Ribbon (TTR) technology. Nearly 30 years later, in 2008, Sony Chemical's TTR division was transferred to Dai Nippon Printing. With the merge of Sony Chemical's TTR division, DNP's Imagingcomm division was established. Thereby, also founding DNP Imagingcomm Europe B.V. DNP's Imagingcomm division has ever since grown to be one of the world's largest manufacturers of Thermal Transfer Ribbons for barcode and dye-sublimation printers. Our European division provides solutions to the barcode, label, photo, ID- and credit card industries in the European, Middle Eastern, African and Russian markets.

大日本印刷 (DNP) の前身、秀英舎は、明治維新後まもない1876年 (明治9年)、東京・銀座の地に誕生しました。「活版印刷を通じて人々の知識や文化の向上に貢献したい」。創業の原動力になったのは、発起人たちのそんな熱い思いでした。現在では、DNPは世界最大規模の総合印刷会社になっています。

今日、DNPの従業員数はおよそ38,600人で、アジア、ヨーロッパ、北米、オーストラリアなどに営業・生産の拠点を持っています。出版印刷や商業印刷から、包装や建材、ディスプレイ関連製品や電子デバイスなどへと事業領域を拡げてきました。DNPは1980年代前半に溶融型熱転写インクリボンの製造を開始しました。2008年にはソニーケミカル&インフォメーションデバイス株式会社より溶融型熱転写インクリボンに係る事業を譲り受け、オランダにDNP Imagingcomm Europe B.V. を設立しました。現在では、DNPは、バーコード向け溶融型熱転写インクリボン及び、写真プリント向け昇華型熱転写インクリボンにおいてグローバルで高いシェアを獲得しています。ヨーロッパの拠点においては、バーコードや、写真プリント、IDカードプリント向けのインクリボン及びソリューションを、ヨーロッパ、中東、アフリカやロシア向けに展開しています。

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