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DNP THERMAL TRANSFER RIBBON FORMULA DESCRIPTIONS

WAX FORMULAS

- **DNP TR4085plus**[®]: (Replaces TR4050, TR4050A and TR4055) **TR4085plus**[®] Resin Enhanced Wax ribbon is recognized as the industry's leading wax since 2000. TR4085plus features DNP's SmoothCoat[™] backcoat, which provides unparalleled printhead protection, while delivering the darkest, most durable images. In addition, TR4085plus prints on a wide range of substrates. Prints at high speeds (12 IPS) delivering crisp, rotated barcodes. Offers superior print quality on flood-coated labels and enhanced smudge and scratch resistance. Meets FDA requirements for indirect food contact applications and comes with a Four Million Linear Inch printhead protection guarantee.
- **DNP Half Inch Wax**: Half Inch Wax ribbon is formulated specifically to function within the temperature and speed range of 1/2" printers while providing uniform coverage on a variety of substrates. Half Inch Wax also incorporates technology designed to control and dissipate static charges and a backcoat proven to protect your printhead. In addition, DNP's halogen-free Half Inch Wax meets FDA requirements for indirect food contact.
- **DNP Signature Series**[™] Wax: Signature Series[™] Wax ribbon is a reliable, cost-effective solution for a wide range of applications. This product features a SmoothCoat[®] backcoat and has a unique ink formulation that dissipates static. Designed with our edge definition for crisp, rotated barcodes and dark, durable images, this wax is versatile enough to print on papers, as well as, low-end synthetics.

COLOR WAX FORMULAS

- **DNP TR3021 (Red), TR3022 (Blue), TR3023 (Green):** TR3021 Red (Pantone 199C), TR3022 Blue (Pantone 286C) and TR3023 Green (Pantone 355C) wax ribbons provide excellent print clarity and are highly smudge resistant. They also are specially formulated with DNP's backcoat technology for printhead protection.

WAX/RESIN FORMULAS

- **DNP MP MID: (Replaces M260)** MP MID is a premium and economical wax/resin ribbon that prints deep black barcodes, delivering excellent small character clarity and edge definition. Designed to print on a wide variety of receiving materials, even floodcoats and varnishes, MP Mid is an excellent choice for extreme applications due to its exceptional resistance to abrasion and solvents.
- **DNP TRX-50: (Replaces TR5050)** TRX-50 features DNP's SmoothCoat® backcoat and is the only wax/resin ribbon on the market backed by a Four Million Linear Inch Printhead Protection Guarantee. Versatile and durable, this wax/resin provides superior print quality on low-end synthetics, and its unique ink formulation dissipates static. TRX-50 prints at low temperatures and high speeds and has unbeatable edge definition with the darkest images possible from a general-purpose ribbon.
- **DNP TRX-55:** TRX-55 is a premium wax/resin ribbon formulation designed to print on a wide variety of receiving materials, including coated and uncoated paper labels and tags, varnished label stock and films. It offers excellent barcode scanning with sharp, reliable images at a wide variety of printing speeds. TRX-55 is an extremely versatile all-purpose wax/resin that will out-perform other ribbons in extreme environments thanks to its powerful resistance against smearing and chemicals

WAX/RESIN FORMULAS – cont.

- **DNP Signature Series™ Wax/Resin**: Signature Series™ Wax/Resin ribbon prints on paper and low-end synthetic tags and labels, providing durable, smudge-resistant images. In addition, DNP's proprietary backcoat technology dissipates static, resulting in a hassle-free, low-maintenance thermal transfer solution. This ribbon has unbeatable edge definition for dark, dense images and improved scan rates.

RESIN FORMULAS

- **DNP R300 (Replaces TR6075)**: R300's extensive label adaptability and high print speed capability makes it the most diverse resin of its kind. It outperforms the competition in abrasion and solvent resistance, uses less print energy and is designed with DNP's standard anti-static and backcoat properties to protect and extend the life of printheads. And, like all DNP ribbons, R300 is an industry leader in Edge Definition™ producing dark, dense images for improved scan rates.
- **DNP R316 (Replaces TRX-76)**: R316 is the industry's best resin ribbon for printing on coated and synthetic paper substrates. It's also able to withstand environmental temperatures of up to 171°C (339°F) making it perfect for applications like heat tunnel passage. R316 uses remarkably low print energy settings while producing high quality heat resistant barcodes and text. This ribbon's design incorporates DNP's standard anti-static and backcoat properties that protect the printhead. R316 prints with DNP's unmatched Edge Definition™ — producing clean, extremely durable, dense barcodes every time.
- **DNP R395 (Replaces R350)**: Designed for special garment care applications, this highly durable resin ribbon is dry clean and laundry safe. R395 Textile Resin is versatile, printing on acetate, nylon, polyester, satin, and taffeta. This product also provides superior scratch, heat and water resistance.

RESIN FORMULAS – cont.

- **DNP R510HF (Replaces TR6070):** Halogen-free R510HF has no substitute – it's one of the toughest resin ribbons on the market. R510HF is the only resin ribbon capable of handling extreme environmental labeling with DNP's unmatched scratch and solvent resistance. Designed with DNP's standard anti-static and backcoat properties to protect the printhead, R510HF has unbeatable Edge Definition™ for crisp, extremely durable and dense barcodes for harsh environments.
- **DNP R550:** R550 ribbon is designed for extreme resistance against most chemicals used in the automotive, chemical, pharmaceutical, electronics and other industries. Enjoy the benefit of printing extremely small, crisp and clearly readable characters with great precision. Next to its extreme durability, R550 ribbon offers a smooth and complete ink transfer at lower heat settings, which makes it compatible with a broad range of durable substrates.
- **DNP TR4070:** TR4070 Classic Resin ribbon carries widespread agency approvals, including meeting the FDA's requirements for indirect food contact. In addition to superior performance for compliance applications, this ribbon eliminates the need for overlaminates. TR4070 features DNP's specially formulated SmoothCoat™ backcoating technology as well as DNP's exclusive anti-static properties for easy handling and unrivaled printhead protection.
- **DNP V300:** The most versatile resin thermal transfer ribbon on the market, V300 prints on everything from paper to PET at high speeds and low energy settings while providing superior mechanical durability and resistance to alcohols like methanol and isopropanol (IPA).

RESIN FORMULAS – cont.

- **DNP Signature Series™ Resin**: Signature Series™ Resin ribbon delivers excellent smudge and scratch-resistant performance in your most demanding applications. It can withstand extreme heat and UV exposure and, in many cases, eliminates the need for overlaminates. This ribbon features DNP's SmoothCoat® backcoat for printhead protection as well as exclusive anti-static properties for easy handling and extra printhead protection.

COLOR RESIN RIBBON FORMULAS

- **DNP R510C: Durable Color Resin** (Blue, Green, Red and Matte Silver) DNP's R510C offers the same unmatched durability as their R510HF Ultra Durable Resin. It's available in four standard colors and is the industry's toughest color resin ribbon capable of handling extreme environmental conditions with DNP's unrivaled scratch and solvent resistance.
- **DNP R510W: Durable White Resin** R510W has DNP's unmatched scratch and solvent resistance and has been designed with DNP's specially formulated backcoat technology for printhead protection. Like all of DNP's ribbons, R510W is an industry leader in edge definition for clean, extremely durable and dense barcodes.
- **DNP TR3370: High Opacity White Resin** TR3370 opaque white resin is specifically formulated for PVC shrink tubing and is highly resistant to ethanol and isopropanol. This ribbon prints well on black, clear and silver synthetic substrates and offers superior smudge and scratch resistance as well as durability. TR3370 also contains DNP's specially formulated backcoat technology for printhead protection.
- **DNP VR301: Durable Metallic Color Resin** DNP's VR301 offers the same incredible durability as our R510HF Ultra Durable Resin. VR301 is available in metallic Gold and Silver and is the industry's toughest color resin ribbon. With DNP's unmatched scratch and solvent resistance, this ribbon is perfect for card printing applications due to its ability to handle extreme environmental conditions

NEAR EDGE WAX/RESIN RIBBON FORMULAS

- **DNP M295HD 4.0: High Density Near Edge Wax/Resin** (4.0-micron thick base film) This ribbon is a drop-in replacement for OEM and other aftermarket products including near edge printer brands like Domino, Markem-Imaje and Videojet. M295HD 4.0 has high concentrations of resin in its ink layer providing extreme durability while also improving its ability to adhere to a wide range of substrates. With a quick-release primer layer and extreme darkness, this super versatile wax/resin ribbon is the ideal choice for any high-speed flexible packaging application.
- **DNP M295HD: High Density Near Edge Wax/Resin** (4.5-micron thick base film) M295HD is a drop-in replacement ribbon for OEM and other aftermarket products including near edge printer brands like Domino, Markem-Imaje and Videojet. M295HD has high concentrations of resin in its ink layer providing extreme durability while also improving its ability to adhere to a wide range of substrates. With a quick-release primer layer and extreme darkness, this super versatile wax/resin ribbon is the ideal choice for any high-speed flexible packaging application.
- **DNP TR4500**: TR4500 premium wax/resin is the best ribbon on the market for the new generation of thermal transfer printers equipped with near edge or corner edge printheads. TR4500 is designed with DNP's specially formulated backcoat technology and DNP's exclusive anti-static properties for easy handling and superior printhead protection. FDA approved for indirect food contact. This ribbon prints dark images at high speed and low energy settings on a wide variety of label and tag stocks from paper to low-end synthetics.

COLOR NEAR EDGE WAX/RESIN RIBBON **FORMULA**

- **DNP M295C: Specialty Color Near Edge Wax/Resin** (Bright White and Silver) M295C prints at speeds up to 20 IPS (508mm per second), making it ideal for flexible packaging applications where speed is critical in the manufacturing process. With DNP's exclusive backcoat technology and anti-static properties for maximum printhead protection, it offers durability and clear images for thermal transfer overprinting on prime retail packaging applications. Available in silver and bright white, M295C is widely acknowledged for its opacity, which provides dramatically visible printed images onto multi-colored prime retail packages.

NEAR EDGE RESIN RIBBON FORMULAS

- **DNP R390: Near Edge Resin** R390 offers the same quality resin printing for near edge applications as the popular **R300** does for flat head. It has exceptionally versatile on a wide variety of substrates and prints at extremely high speeds for faster turnaround. R390 outperforms the competition in abrasion and solvent resistance, and contains DNP's specially formulated backcoat technology, as well as their exclusive anti-static properties for easy handling and superior printhead protection. R390 features edge definition for clean, extremely durable and dense barcodes.
- **DNP R396: High Speed Durable Near Edge Resin** R396 boasts printing speeds as high as 26 IPS (660mm per second), making this ribbon the choice for high-speed flexible packaging applications. R396 exceeds the competition in abrasion resistance and is a viable solution to applications such as parts packaging, medical devices, cosmetics, healthcare and pharmaceuticals. R396 is designed with DNP's standard anti-static and backcoat properties to protect printheads and extend printhead life. R396 also features edge definition to produce dark, dense images for improved scan rates.