



## Thermal Transfer Ribbon Technical Data Sheet

### TR4085plus® Premium Resin-Enhanced Wax

#### Product Description

The industry's leading wax product since its introduction to the market in November 2000, TR4085plus® features our SmoothCoat® backcoat. This unique ink formulation dissipates static and is versatile enough to print on a wide variety of label stocks. No other wax product beats TR4085plus® when it comes to Edge Definition™ for crisp, rotated bar codes and dark, durable images.

#### Recommended Applications



FLEXIBLE  
PACKAGING



GENERAL



INVENTORY



LOGISTICS



PARTS  
PACKAGING



PHARMACEUTICAL



PRODUCT ID



RETAIL



RFID



SHELF



SHIPPING



SIGNAGE

#### Recommended Substrates

Coated/uncoated paper & tag stocks, synthetic paper, polyethylene, polypropylene, polyolefin, Kimdura®, Valeron®, Polyart®, gloss paper, flood-coated paper, UV varnished labels

#### Performance Characteristics

- Halogen-Free
- Prints on a wide variety of substrates from uncoated papers to mid-range synthetic films
- Prints at high speeds (12 IPS) delivering crisp, rotated bar codes
- Dissipates static
- Enhanced smudge and scratch resistance
- Superior print quality on flood-coated labels
- Unbeatable Edge Definition™ for dark, dense images and improved scan rates

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

Visit us at [www.dnpribbons.eu](http://www.dnpribbons.eu)

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**DNP Global Locations**

USA

Japan

Netherlands

Singapore



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#### Ribbon Properties

Description	Result	Test Method
Ink	Wax (resin-enhanced)	
Color	Black	Visual
Total Thickness	8.0 ± 0.5μ	Micrometer
Base Film Thickness	4.8 ± 0.3μ	Micrometer
Ink Thickness	3.2 ± 0.2μ	Micrometer
Ink Melting Point	75°C (167°F)	Differential Scanning Calorimeter

#### Durability of Printed Image

Label Stock: Coated Paper

Print Speed: 6 IPS

Description	Result	Test Method
Print Density	> 1.80	Densitometer
Smudge Resistance	A*	Colorfastness Tester - 50 Cycles @ 500 Grams with Cotton Cloth
Scratch Resistance	A*	Colorfastness Tester - 20 Cycles @ 200 Grams with Stainless Steel Pointed Tip

\*American National Standard Institute (ANSI) Grade Levels A, B, C, D, and F, where A is excellent, B is above average, C is average, D is below average, and F is poor.

#### Conversion Chart

Millimeters (mm) to Inches = mm ÷ 25.4	Inches to Millimeters (mm) = Inches ÷ 0.03937
Meters (m) to Feet (ft) = m ÷ 0.3048	Feet (ft) to Meters (m) = Feet ÷ 3.2808
C° to F° = (1.8 X C°) + 32 = F°	F° to C° = (F° ÷ 1.8) - 17.77
Thousand square inches (MSI) to m² = MSI X 0.645	MSI = m² ÷ 0.645



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