



## Thermal Transfer Ribbon Technical Data Sheet

### R510 Ultra Durable Resin

#### Product Description

Our R510 ribbon has no substitute — it is the toughest resin ribbon on the market. R510 is the only resin ribbon capable of handling extreme environmental labeling with our unmatched scratch and solvent resistance. Designed with our standard anti-static and backcoat properties to protect the printhead, R510 has unbeatable Edge Definition™ for crisp, extremely durable, and dense harsh environmental bar codes.

#### Recommended Applications



AGENCY



ASSET TRACKING



AUTOMOTIVE



CHEMICAL DRUM



CIRCUIT BOARD



ELECTRONIC COMPONENTS



EXTREME ENVIRONMENT



HAZARDOUS



HEALTHCARE



OUTDOOR



PRODUCT ID



SECURITY

#### Recommended Substrates

Top-coated vinyl, polyimide, polyesters, PVC cards, PET cards

#### Performance Characteristics

- Toughest resin ribbon on the market
- Unmatched in abrasion and solvent resistance
- UL recognized & CSA approved
- High density printing ensuring Edge Definition™
- Anti-static for easy handling and extended printhead life
- Also available in white and silver
- DNP's specially formulated backcoating for printhead protection

*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.*



Registered to  
ISO 9001

REV 4-17-09

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

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### R510 Ultra Durable Resin

#### Ribbon Properties

Description	Result	Test Method
Ink	Resin	
Color	Black	Visual
Total Thickness	7.5 ± 0.5µ	Micrometer
Base Film Thickness	4.8 ± 0.3µ	Micrometer
Ink Thickness	2.7 ± 0.2µ	Micrometer
Ink Melting Point	109°C (228°F)	Differential Scanning Calorimeter

#### Durability of Printed Image

Label Stock: Top-coated Polyester

Print Speed: 6 IPS

Description	Result	Test Method
Print Density	> 1.90	Densitometer
Smudge Resistance	A*	Colorfastness Tester - 100 Cycles @ 500 Grams with Cotton Cloth
Scratch Resistance	A*	Colorfastness Tester - 50 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 m <sup>2</sup> = MSI X 0.645	MSI = m <sup>2</sup> ÷ 0.645

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