



## Thermal Transfer Ribbon Technical Data Sheet

# R510<sup>HF</sup> Ultra Durable Resin

## Product Description

Our halogen-free R510<sup>HF</sup> is one of the toughest resin ribbons on the market. R510<sup>HF</sup> is the only halogen-free 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<sup>HF</sup> has unbeatable edge definition for crisp, extremely durable, and dense harsh environmental bar codes.

## Recommended Applications



AGENCY



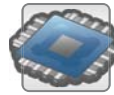
ASSET TRACKING



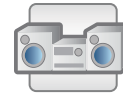
AUTOMOTIVE



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

- Halogen-free
- UL recognized
- Unmatched in abrasion and solvent resistance
- High density printing ensuring edge definition
- Anti-static for easy handling and extended printhead life
- Specially formulated backcoating for printhead protection

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#### 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

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

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