

# Thermal Transfer Ribbons

## STANDARD WAX



### Technical Data Sheet RY511

#### Product Description :

RY511 is a standard wax ribbon that has been recognized by customers worldwide for over a decade. It offers resin enhanced image quality, broad substrate compatibility, and an affordable price. RY511 's low energy consumption and enhanced back coating help protect printheads substantially, effectively extending their service life. RY511 is the perfect choice for general-purpose wax ribbon applications, providing excellent print quality, graphics, and barcode clarity at substantial savings. When compare to other general-purpose wax ribbon, RY511 print at lower energy setting, creates a darker image, and provides higher durability, all while printing in excess of 3+ million linear inches.

#### Application :



Inventory & Logistic



Retail



Textile Garment

#### Recommended Substrates :

##### Paper

- ☒ Coated tag stock
- ☒ Uncoated tag stock
- ☒ Gloss paper
- ☒ Synthetic paper
- ☒ Coated paper
- ☒ Uncoated paper
- ☒ Food-coated paper

##### Synthetics

- ☒ Polypropylene
- ☒ Polyethylene
- ☒ Polyolefin

##### Specialty Materials

- ☒ Kimdura®
- ☒ Valeron®

#### Ribbon Properties :

Ink : Wax

Color : Black

Total Thickness :  $8.8 \pm 0.3 \mu$

Base Film Thickness :  $4.5 \pm 0.1 \mu$

#### Performance Characteristics :

- ☒ Suitable for a wide range of applications
- ☒ Intense darkness and impeccable sharpness in printed image
- ☒ Specially formulated back coating for print-head protection

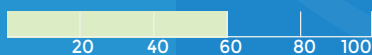
##### PRINT SPEED

8 IPS



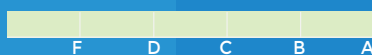
##### HEAT RESISTANCE

60 °C



##### SCRATCH RESISTANCE

\*A



Slight exposure - 10 Cycles @680 Grams weight load

##### PRINT DENSITY

> 1.75

Spectro-Densitometer



##### SMUDGE RESISTANCE

\*A

Slight exposure - 30 Cycles @680 Grams weight load



\* 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.

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# Thermal Transfer Ribbons

## PREMIUM WAX



### Technical Data Sheet RY552

#### Product Description :

Discover the superior performance of RY552, an high performance excellent wax ribbon designed to meet the stringent demands of diverse industries. Boasting a low printing temperature and robust scratch resistance, RY552 stands out with its exceptional durability and energy efficiency. This economical choice not only ensures excellent substrate compatibility but also delivers high sensitivity and definition, making it an ideal solution for various applications. Perfect for general purpose wax ribbon needs, RY552 impresses with its outstanding print quality, vivid graphics, and barcode clarity all at significant cost savings. Compared to other general-purpose wax ribbons, RY552 takes the lead with lower energy settings, darker image creation and remarkable durability. Elevate your printing experience with RY552, where performance, savings, and reliability converge.

#### Application :



Inventory & Logistic



Retail



Food & Beverage



Health & Beauty



Pharmaceutical

#### Recommended Substrates :

##### Paper

- ☒ Coated tag stock
- ☒ Uncoated tag stock
- ☒ Coated paper
- ☒ Uncoated paper
- ☒ Gloss paper
- ☒ Synthetic paper

##### Synthetics

- ☒ Polypropylene
- ☒ Polyethylene
- ☒ Polyolefin

##### Specialty Materials

- ☒ Kimdura®
- ☒ Valeron®

#### Ribbon Properties :

Ink : Wax

Color : Black

Total Thickness :  $8.5 \pm 0.3 \mu$

Base Film Thickness :  $4.5 \pm 0.1 \mu$

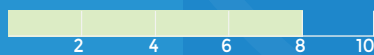
#### Performance Characteristics :

- ☒ Enhanced Backcoat Technology
- ☒ Perfect Sharpness

- ☒ Low Printing Energy Consumption
- ☒ 2.2 ODR Printing Darkness

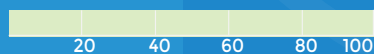
##### PRINT SPEED

8 IPS



##### HEAT RESISTANCE

100 °C



##### SCRATCH RESISTANCE

\*A

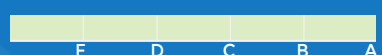
Slight exposure -150 Cycles @680 Grams weight load



##### SMUDGE RESISTANCE

\*A

Slight exposure -100 Cycles @680 Grams weight load



##### WATER RESISTANCE

No significantly faded : Soaked in water at 100 °C for 2 hrs.

##### LOW TEMPERATURE

No significantly fallen of : Placed in a closed cold box at -17 °C for 20 hrs.

\*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.

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# Thermal Transfer Ribbons

## WAX RESIN



### Technical Data Sheet RY881

#### Product Description :

RY881 is a cost-effective wax-resin ribbon provides great print quality and scratch resistance on a wide range of print media. Renowned for its adaptability, RY881 stands out with exceptional print quality and reduced print energy consumption, ensuring both versatility and efficiency. Its low energy requirements, coupled with MNPI's cutting-edge backcoat technology, contribute to extending the lifespan of print-heads, particularly in demanding wax-resin applications. Beyond its performance, RY881 prioritizes safety, being halogen-free and devoid of toxic SVHC substances.

#### Application :



Inventory & Logistic



Retail



Outdoor



Pharmaceutical



Health & Beauty



Textile Garment



Name Card

#### Recommended Substrates :

##### Paper

- ☒ Coated tag stock
- ☒ Uncoated tag stock
- ☒ Coated paper
- ☒ Uncoated paper
- ☒ Synthetic paper

##### Synthetics

- ☒ Polypropylene
- ☒ Polyethylene
- ☒ Polyolefin

##### Specialty Materials

- ☒ Kimdura®
- ☒ Valeron®

#### Ribbon Properties :

Ink : Wax

Color : Black

Total Thickness :  $8.2 \pm 0.3 \mu$

Base Film Thickness :  $4.5 \pm 0.1 \mu$

#### Performance Characteristics :

☒ Halogen-free

☒ Free of toxic SVHC substances

☒ Great abrasion resistance

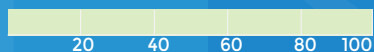
##### PRINT SPEED

8 IPS



##### HEAT RESISTANCE

60 °C



##### SCRATCH RESISTANCE

\*A



Slight exposure -150 Cycles @680 Grams weight load

##### SMUDGE RESISTANCE

\*A

Slight exposure -100 Cycles @680 Grams weight load



##### WATER RESISTANCE

No significantly faded :  
Soaked in water at 100 °C for 2 hrs.

##### LOW TEMPERATURE

No significantly fallen of : Placed in a closed cold box at -17 °C for 20 hrs.

\*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.

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# Thermal Transfer Ribbons

## PREMIUM WAX RESIN



### Technical Data Sheet RY882

#### Product Description :

RY882 delivers exceptional performance for harsh environments and demanding applications. This wax/resin formulation prints deep black, high-resolution barcodes and variable information with razor-sharp clarity and edge definition. Its exceptional scratch and smudge resistance ensures printed images remain pristine, while eliminating label retrack issues during printing. RY882 excels on a wide range of receiving materials, including coated and uncoated paper labels and tags, varnished label stock, and even flood-coat substrates, making it the ideal choice for extreme printing

#### Application :



Inventory & Logistic



Retail



Food & Beverage



Health & Beauty



Out Door

#### Recommended Substrates :

##### Paper

- ☒ Coated tag
- ☒ Uncoated tag
- ☒ Coated paper
- ☒ Uncoated paper
- ☒ Gloss paper

##### Synthetics

- ☒ Polypropylene
- ☒ Polyethylene
- ☒ Polyolefin

##### Specialty Materials

- ☒ Kimdura®
- ☒ Valeron®
- ☒ Top-Coated Vinyl
- ☒ Polystyrene

#### Ribbon Properties :

Ink : Wax

Color : Black

Total Thickness :  $8.8 \pm 0.3 \mu$

Base Film Thickness :  $4.5 \pm 0.3 \mu$

#### Performance Characteristics :

- ☒ Halogen-free
- ☒ Anti-static for easy handling
- ☒ Print on an extensive variety of substrate expanding application options

##### ABRASION RESISTANCE

Excellent

##### UV RESISTANCE

Excellent

##### SCRATCH RESISTANCE

\*A F D C B A

Colorfastness Tester -20 Cycles @200 Grams with Stainless Steel Pointed Tip  
Label Stock : Coated Paper Print Speed : 6 IPS

##### PRINT DENSITY

> 1.85

Densitometer

##### SMUDGE RESISTANCE

\*A

Slight exposure -50 Cycles @500 Grams with Cotton Cloth

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#### RYHTS CO., LTD.

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Tel.094-642-6294 | E-mail : sales@ryhts.com | www.ryhts.com



# Thermal Transfer Ribbons

## RESIN



## Technical Data Sheet RY981

### Product Description :

RY981 is a high-performance resin ribbon that provides a durable image and is compatible with synthetic label materials, using less print energy. Excellent solution regarding abrasion, solvent, and temperature resistance.

- Excellent print quality for PET, PVC and Silver Matte
- Excellent resistance to Smear and scratch
- Extra performance on Solvent resistances

### Ribbon Specification

Ink Type	: Resin
Color	: Black
Total Thickness	: $6.7 \pm 0.3 \mu\text{m}$
Base Film Type	: Polyester
Base Film Thickness	: $4.5 \pm 0.3 \mu\text{m}$
Melting Point	: $75^\circ\text{C}$

### Application :



Barcode



Pharmaceutical



Nameplate

### Recommended Substrates :

#### Paper

☒ Synthetic paper

#### Synthetics

- ☒ Polyethylene Terephthalate (PET)
- ☒ Silver Matte
- ☒ Polyvinyl chloride (PVC)

### Storage Conditions :

Temperature	: $0 - 40^\circ\text{C}$
Humidity	: $20 - 80\%$
Validity Period	: 12 months

### Typical Compliance :

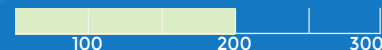
REACH / SVHC	: 1907 / 2006 / EC
RoHS / Heavy Metals	: 2011 / 65 / EU
ISEGA Certified	: 1935 / 2004 / EC

\* Above document are available upon request.

### Performance :

#### PRINT SPEED

200 mm/sec



#### TRANSFER SENSITIVITY

2



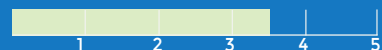
#### SCRATCH / SMUDGE

#### RESISTANCE

3.5 ANSI

Pressure :  $1.96 \times 10^4 \text{ Pa}$

Stroke Cycle : 3,000 cycle with corrugated paper



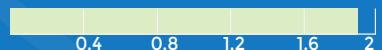
#### SOLVENT RESISTANCE

Strong



#### PRINT DENSITY

> 1.8

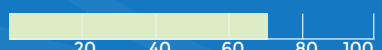


#### Konica Minolta FD-5

#### UV RESISTANCE

70%

168 hours exposed on UV test machine



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