



PRODUCTS

WAX

W110	General Purpose Wax
W137	Premium Plus Wax

WAX/RESIN

M250	Premium Plus Wax/Resin
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RESIN

R300	General Purpose Resin
R316	Specialty Resin
R340	Permanent Care Resin
R510	Ultra Durable Resin

NEAR EDGE

W190	Near Edge Wax
M290	Near Edge Wax/Resin
R390	Near Edge Resin

COLORS & METALLICS

W120C	General Color Wax
R316C	Specialty Color Resin
R510C	Durable Color Resin

R316 PROPERTIES

Print Sensitivity	9
Heat Resistance	10
Abrasion Resistance	9
Solvent Resistance	8.5
Label Adaptability	8

LOW HIGH

R316

SPECIALTY RESIN

Thermal Transfer Ribbon

Product Description

R316 is unique in the industry – the best resin ribbon for printing on paper and synthetic paper substrates. It is able to withstand environmental temperatures of up to 220°C (428°F) making it perfect for applications like heat tunnel passage. R316 uses remarkably low print energy settings while producing high quality heat resistant bar codes. This ribbon's design incorporates DNP's standard anti-static and back coat properties that protect the print head, and also prints with DNP's unmatched Edge Definition™ – producing clean, extremely durable, dense bar codes every time.

Recommended Applications



SHRINK WRAP



TEXTILE



HORTICULTURE



HEALTHCARE



PHARMACEUTICAL

Recommended Substrates

Coated paper, synthetic paper, polyethylene, polypropylene, polyolefin, Kimdura®, Valeron®, Polyart®

Performance Characteristics

- Recommended for use in extreme heat applications
- Compatible with paper and synthetic paper
- Remarkably low print energy used to create high quality harsh environment bar codes
- Anti-static for easy handling and extended print head life
- Industry leading in Edge Definition™ for clean, durable, and dense bar codes
- Available in colors and metallics
- DNP's specialty formulated back coating for print head protection

THE DAI NIPPON PRINTING GROUP

DNP is the largest manufacture of thermal transfer ribbons for facsimile machines, bar code and dye-sublimation printers. DNP is also the world's largest diversified printing/coating technologies company. At its 40 plants, both in Japan and overseas, DNP's operations include commercial printing, packaging, decorative materials, electronics, business forms and information media supplies. DNP is a Global Fortune 500 company with \$13 billion in annual revenue.

Contact DNP

1.800.814.4672

www.dnpribbons.com

RESIN

THE WORLD'S LARGEST THERMAL
TRANSFER RIBBON MANUFACTURER

TECHNICAL DATA SHEET

RIBBON SPECIFICATIONS

DESCRIPTION	TECHNICAL SPECIFICATIONS
Ink	Resin
Color	Black, Colors, Metallics
Ink Thickness	3.2 ± 0.4μ
Base Film Thickness	4.5μ
Ribbon Thickness	9.8 ± 0.7μ
Ink Melting Point	82°C – 84°C (179.6°F – 183.2°F)
Print Density	>1.8

PERFORMANCE OF PRINTED IMAGE

DESCRIPTION	TECHNICAL SPECIFICATIONS
Tested Substrate	Fasson® Trans-Therm® IC
Test Method	Crockmeter
Abrasion Resistance Test	1000 cycles @ 900g covered with cloth*
Solvent Resistance Test	WATER 1000 cycles @ 248g covered with cloth*
	KEROSENE 200 cycles @ 248g covered with cloth*
	IPA 80 cycles @ 248g covered with cloth*
Heat Resistance	<220°C (<428°F)
Print Speed Range	2 to 12 IPS

CONVERSION CHART

mm to in.	(mm ÷ 25.4)	in. to mm	(in. ÷ 0.03937)
m to ft.	(m ÷ 0.3048)	ft. to m	(ft. ÷ 3.2808)
C° to F°	[(1.8 × C°) + 32]	F° to C°	[(F° ÷ 1.8) – 17.777]
in. to m	(MSI ÷ 0.645)	m² to MSI	(m² × 0.645)

RIBBON STORAGE CONDITIONS

Temperature	5°C to 35°C (41°F to 95°F)
Humidity	10% to 85% relative humidity
Light	Avoid direct sunlight

Quality Systems
ISO Registered

*Highest number of cycles where ANSI grade A can still be scanned.

All information on data sheet generated at DNP laboratories worldwide. DNP reserves the right that measured values may vary slightly when tested under different environments. Information subject to revisions without notification.

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RESIN

NORTH & LATIN AMERICA

Dai Nippon IMS (America) Corp.
4524 Enterprise Dr. NW
Concord, NC 28027 United States
TEL 1.800.814.4672
FAX 1.704.784.7196

EUROPE

Dai Nippon Printing (Europa) GmbH
Berliner Allee 26, 40212
Düsseldorf, F.R. Germany
TEL +49.211.8620.180
FAX +49.211.8620.1895

ASIA

Dai Nippon Printing Co., Ltd.
2F, Ichigaya Sankyo Bldg.
14-1 Haraikatacho
Shinjuku-ku, Tokyo 162-0841 Japan
TEL +81.3.3266.4210
FAX +81.3.3266.4224

DNP
The Dai Nippon Printing Group
www.dnppribbons.com