



## Thermal Transfer Ribbon Product Reference Guide

Listed below is Sony's broad selection of superior-performing thermal transfer ribbons. Each product has been uniquely engineered to consistently meet the requirements of a wide range of applications and tested for optimum performance with a variety of materials on most printer models. If you need additional assistance selecting the best ribbon for your application, call us at (724) 696-7500.

GENERAL PURPOSE WAX <i>Broad performance characteristics deliver the image quality and durability required for most applications, while providing an excellent total cost solution.</i>		PREMIUM WAX/RESIN <i>Premium wax/resin ribbon products produce superior results including darker images, higher print speeds and less printhead static on a wide range of media from paper to low-end synthetics.</i>			SPECIALTY RESIN <i>Specialty application ribbons provide improved image quality and durability for applications that require special performance characteristics like extra resistance to environmental conditions, smudging, and scratching.</i>				NEAR EDGE <i>Prints a dark, durable image using the new generation of thermal transfer printers equipped with near edge or corner edge printheads at high speeds and low energy settings.</i>			TRX RIBBON SERIES <i>TRX ribbons produce images with unsurpassed print quality and durability in extreme applications. TRX ribbons provide superior solvent resistance, enhanced heat resistance at temperatures as high as 302°F (150°C), and unmatched abrasion resistance.</i>			
4085 plus™ PREM.WAX	302(X) WAX R B G	5050 WAX/RESIN	4065 WAX/RESIN	4080 WAX/RESIN	4070 RESIN	4075 RESIN	5070 <sup>2</sup> RESIN	3370 RESIN WHITE	4500 <sup>1</sup> WAX/RESIN NEAR EDGE	4571 <sup>1</sup> RESIN NEAR EDGE	5500 <sup>3</sup> WAX/RESIN NEAR EDGE	TRX-55 WAX/ RESIN	TRX-75 RESIN	TRX-85 Specialty RESIN	TRX-95 Specialty RESIN

### TAG STOCKS

Uncoated Tag	●	●	●						●		●	●			
Coated Tag	●	●	●	●	●				●		●	●			

### PAPER LABEL STOCKS

Coated Face Sheets	●	●	●	●	●				●		●	●			
Uncoated Face Sheets	●	●	●						●		●	●			
Gloss Sheets	●	●	●	●	●				●		●	●			

### ECONOMY SYNTHETICS

Polypropylene	●	●	●	●	●				●		●	●	●		
Vinyl (topcoat)		●			●	●	●	●		●			●	●	●
Polyethylene		●	●	●	●				●		●	●			
Polystyrene			●				●		●			●	●		
Polyolefin	●	●	●	●	●				●		●	●		●	●

### HIGH-END SYNTHETICS

Polyesters (gloss topcoat)						●	●	●	●		●		●		
Polyesters (matte topcoat)				●	●	●	●	●	●		●		●		

### SPECIALTY MATERIAL

Tyvek®	●	●	●		●					●		●			
Tyvek® Brillion™	●	●	●		●					●		●			
Valeron®			●	●	●		●			●		●			
Teslin®	●											●			
alphaMAX™	●	●	●	●	●				●		●	●	●		
Polyimide						●	●	●					●	●	●
PVC Shrink Wrap							●		●				●		
Nylon Taffata															●

### AGENCY APPROVAL

CSA						●	●	●							
UL			●	●	●	●	●	●	●		●		●	●	●
FDA (Indirect Food Contact) <sup>5</sup>	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
AGA						●									
CGA						●									

R=RED B=BLUE G=GREEN

- 1 -TEC approved.
- 2 -Recommended for a chemical resistant application.
- 3 -For Novexx and Avery printers

- Sony recommends that ribbons be tested independently to match specific labeling requirements.
- The recommendations listed above are based on testing conducted on various label stocks.
- Contact Sony for information on available configurations for the above formulations.
- Test results may vary depending on the brand of label stock used.
- All Sony thermal transfer ribbons meet FDA requirements for indirect food contact.

# CHEMICAL RESISTANCE TEST RESULTS

Chemical resistance was tested on Flexcon 21830 TC 387 Polyester using the AB-301 Colorfastness Tester with 500g of downward force

Chemical	TR5070	TR4070
5% HCl <sup>a</sup>	100 cycles	100 cycles
Acetone	3 cycles	2 cycles
Brake Fluid <sup>b</sup>	100 cycles	10 cycles
Engine Oil	100 cycles	100 cycles
Ethyl Alcohol	100 cycles	57 cycles
Ethylene Glycol	100 cycles	100 cycles
Fast Wipes <sup>®c</sup>	100 cycles	100 cycles
Formula 409 <sup>®</sup>	100 cycles	100 cycles
Gasoline	100 cycles	13 cycles
Hydraulic Oil	100 cycles	100 cycles
Isopropanol	100 cycles	100 cycles
Methanol	100 cycles	100 cycles
Methyl Ethyl Ketone (MEK)	3 cycles	1 cycle
Mineral Oil	100 cycles	100 cycles
Mineral Spirits	100 cycles	100 cycles
Paint Thinner	100 cycles	100 cycles
Toluene	7 cycles	1 cycle
Water	100 cycles	100 cycles
Windex <sup>®</sup>	100 cycles	100 cycles
Xylene	14 cycles	1 cycle

## Chemical Resistance Notes

The values in the ribbon columns represent the number of rub cycles the printed label endured before the image began to degrade. The maximum number of cycles was 100.

<sup>a</sup> Diluted from a 25% HCl solution by 5:1 (Deionized water: HCl)

<sup>b</sup> Brand: ATLAS Supply Company. Type: DOT 3 Motor Vehicle Brake Fluid, Super Heavy Duty 450

<sup>c</sup> Brand: GOJO<sup>®</sup>. Contains: Water, Ethyl Alcohol, Nonionic Surfactant, D-Limonene, Allantoin, Aloe Extract, Dimethicone, Dimethyl Oxazolidine, DMDM Hydantoin, Inositol, Isopropyl Alcohol, Methionine, Propylene Glycol, Vitamins A, B, C, E, H, Wheat Germ Extract

## Conversion Chart

mm to inches ► mm ÷ 25.4

Inches to mm ► inches ÷ .03937

M to feet ► M ÷ .3048

Feet to M ► feet ÷ 3.2808

$\frac{\text{width} \times \text{length}}{1000} = M^2 \text{ of one roll}$

$\frac{M^2 \times \text{MSI}}{.645} = \text{price per roll}$

## Warranty Policy

Sony Chemicals Corporation of America guarantees our thermal transfer ribbons for one year from date of sale under the following storage conditions - storage temperature: 5°C - 35°C Storage humidity: 20%RH - 85%RH. Avoid high temperature, high humidity, and direct sunlight during storage.

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

# SONY

Sony Chemicals Corporation

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 alphaMAX<sup>®</sup> is a registered trademark of FLEXcon Company, Inc.

**Sony Chemicals Corporation of America**  
 1001 Technology Drive  
 Mt. Pleasant, PA 15666-1766  
 Tel. (724) 696-7500 FAX: (724) 696-7555  
 E-mail: sales\_marketing@sonychemicals.com  
 Order No. F-REF 8/02