FCCID:UAUTSEC13560KHZ

SECURITY
EQUIPMENT. 4RN1

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. And (2) This device must accept any interference received, including interference that may cause undesired operation. This class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Integrated Control
Technology Limited
New Zealand

Proximity Card
Reader **Model:**
PRX-TSEC-STD
-DF-KP-B

Purple **NB**
Yellow **NA**
Blue **BEEPER**
Brown **LED BLUE**
Orange **LED GREEN**
White **DATA 1**
Green **DATA 0**
Black **0V**
Red **+12V**

SECURITY

www.ict.co

EQUIPMENT.
4RN1 ACCESS
CONTROL
UNIT READER


94V-0
E314500
FCCID:UAUTSEC13560KHZ
ULC LISTED
FC
CE
SECURITY
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Proximity Card Reader Model: PRX-TSEC-STD -DF-KP-B
Blue BEEPER
Brown LED BLUE
Orange LED GREEN
White DATA 1
Green DATA 0
Black 0V
Red +12V
SECURITY
UL
LISTED
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EQUIPMENT. 4RN1 ACCESS CONTROL UNIT READER

Resin SP330

Excellent durability for heavy duty labeling applications.

Maximum abrasion resistance assures lasting variable barcodes and text. Full resin ribbon bonds to a variety of high-end synthetics, providing excellent scratch and smudge resistance. Image quality is unsurpassed, especially crisp for high-resolution output required for small text and 2D barcodes.

Benefits

- UL/CSA Recognized on Specific Substances
- Excellent Mechanical Durability
- Good Resistance to Typical Chemicals
- Very Dark Black Images with Exceptional Sharpness
- Prints on a Wide Range of Synthetic Receivers
- Anti-Static Formula and Backcoat Extend Printhead Life
- Clean Start® Built-In Printhead Cleaner

Recommended Stocks

- Top-Coated and Print-Treated Polyester
- Polyimide Films
- Polypropylene
- Polyethylene
- Vinyl
- Nylon

Clean Start®

The printhead cleaner built in your ribbon.

IIMAK Thermal Transfer Ribbons

PM 308	Prime Mark	SP330
Wax/Resin ***High durability*** *to endure rough handling, abrasion, occasional chemical exposure, and outdoor elements*		***Resin*** ***Maximum durability*** *to resist abrasion, heat, steam, and chemicals*

Wax Ribbons for General Purpose Labeling
GP725 | High Mark

Ribbons for Near Edge Printers and Flexible Packaging Coders
NET FLEX | NET MARK IQ | NET RESIN IQ

Color Thermal Transfer Ribbons
DC100 | DC200 | DC400 | NET Color

Security Enhanced Thermal Transfer Ribbons
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Applications

Industrial | Outdoor | Automotive | Electronics | Medical Devices | Pharmaceutical | Life Sciences | Garment

SP330 Resin

Clean Start®
The printhead cleaner built in your ribbon.

Outstanding mechanical durability for the most demanding applications. Strongly resists abrasion and withstands many common chemicals. Razor sharp images transfer to many premium synthetic tags and labels.




Technical Specifications

Color Code Tab..... Blue

Film Thickness..... 4.5 Microns

Total Ribbon Thickness..... 6.2 Microns

Transmission Density..... 1.00 MacBeth Scale

Ink Melting Point..... 110°C/230°F

UL and CSA Labeling Reference

Avery Fasson: UL MH17205, CSA 97198

FLEXcon: UL MH16635. CSA 99214

3M: UL MH16411

Sample SP330 Ribbons

Part # CES11019 – 110 mm x 50 m – CSI

Part # CES11018 – 110 mm x 50 m – CSO

Typical Compliance

REACH – SVHC Free • RoHS/WEEE
TSCA • CONEG • California Proposition 65
Additional Regulatory Requirements Upon Request

Imaging Characteristics

Printer	Print Speed	Energy Range
Flathead	6 IPS	Upper

Image Darkness	Scratch/Smudge	Chemical
>2.2 RD (densitometer)	Highest Resistance	Moderate Resistance

Industry Leading Customer Service

- Free Clean Start® built-in printhead cleaner
- Free samples
- Free technical support 888.372.0137
- Free 24-hour print tests
- Over 500 SKUs stocked for same-day shipping
- Complete line of over 2,000 SKUs

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First in service. Impressions that last.℠

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Thermal Transfer Ribbons made in the USA

Thermal Transfer Polyester Label Materials

7816 • 7816FL • 7875

Technical Data **July, 2010**

Product Description

3M™ Thermal Transfer Polyester Label Materials 7816, 7816FL and 7875 are durable polyester label stocks that offer excellent moisture resistance and thermal stability. These label products utilize 3M™ Adhesive 310 which is a firm adhesive which resists oozing and provides high strength on a variety of surfaces including high surface energy (HSE) plastics and metals.

Construction

(Calipers are nominal values.)

Product	Facestock	Adhesive	Liner
3M Label Material 7816	2.0 mils (51 microns) White Polyester Gloss TC	0.8 mil (20 microns) 310 Acrylic	3.2 mils (81 microns) 55# Densified kraft
3M Label Material 7816FL	2.0 mils (51 microns) White Polyester Gloss TC	0.8 mil (20 microns) 310 Acrylic	1.5 mils (38 microns) Polyester
3M Label Material 7875	2.0 mils (51 microns) Matte Platinum Polyester TC	0.8 mil (20 microns) 310 Acrylic	3.2 mils (81 microns) 55# Densified kraft

Features

- Topcoated for thermal transfer printing. Resin ribbons are recommended for optimum durability. The topcoat also provides improved ink anchorage for traditional forms of press printing.
- 3M label materials 7816 and 7875 55# densified kraft liner assures consistent die cutting.
- 3M label material 7816FL polyester liner contributes to improved die cutting by allowing for deeper die cuts than paper without the added concern of exposing paper fibers. A backside release coating helps minimize label blocking. The film liner resists breaking during high speed dispensing. The polyester liner is recommended for clean room applications.
- UL recognized (File MH16411) and CSA accepted (File 99316). See the UL and CSA listings for details.

Application Ideas

- Barcode labels and rating plates.
- Property identification and asset labeling.
- Warning, instruction, and service labels for durable goods.
- Nameplates and durable goods.

3M™ Thermal Transfer Polyester Label Materials

7816 • 7816FL • 7875

Typical Physical Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Adhesive Coat Weight	1.05 to 1.21 g/100 in^2	TM-2279
Release Range	5 to 50 g/2 in.	TLMI Method, 180° removal, 300 in./min.
Service Temperature	-40°F to 300°F (-40°C to 149°C)	
Minimum Application Temperature	50°F (10°C)	
Convertability	The firmness of 3M™ High Precision Acrylic Adhesive 310 is specifically designed to be compatible with thermal transfer and laser technologies. Adhesive processing issues are not anticipated when proper roll tensions, handling and storage conditions are used. Please refer to the the die cutting/converting section of this data page or the "Guide to Converting and Handling Label Products" technical bulletin for additional information.	

Typical Peel Adhesion Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Adhesion: 180° peel test procedure is ASTM D 3330.
90° peel test procedure is ASTM D 3330 modified for the angle change.

	Initial (10 Minute Dwell/RT)				**Conditioned for 3 Days at Room Temperature 72°F (22°C)**			
	180° Peel		**90° Peel**		**180° Peel**		**90° Peel**	
Surface	**Oz./In.**	**N/100 mm**	**Oz./In.**	**N/100 mm**	**Oz./In.**	**N/100 mm**	**Oz./In.**	**N/100 mm**
Stainless Steel	43	47	35	38	51	56	41	45
Polycarbonate	47	51	37	40	52	57	43	47
Polypropylene	18	20	16	18	18	20	24	26
Glass	52	57	34	37	68	74	47	51
HD Polyethylene	24	26	16	18	33	36	20	22
LD Polyethylene	20	22	12	13	32	35	22	24

	Conditioned for 3 Days at 120°F (49°C)				**Conditioned for 24 hours at 90°F (32°C) at 90% Relative Humidity**			
	180° Peel		**90° Peel**		**180° Peel**		**90° Peel**	
Surface	**Oz./In.**	**N/100 mm**	**Oz./In.**	**N/100 mm**	**Oz./In.**	**N/100 mm**	**Oz./In.**	**N/100 mm**
Stainless Steel	60	66	46	50	74	81	46	50
Polycarbonate	41	45	32	35	62	68	40	44
Polypropylene	35	38	30	33	38	42	27	30
Glass	68	74	42	46	66	72	32	35
HD Polyethylene	30	33	20	22	35	38	27	30
LD Polyethylene	5	4	8	9	20	22	24	26

3M™ Thermal Transfer Polyester Label Materials
7816 • 7816FL • 7875

Environmental Performance

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

The properties defined are based on four hour immersions at room temperature (72°F/22°C) unless otherwise noted. Samples were applied to stainless steel panels 24 hours prior to immersion and were evaluated one hour after removal from the solution for peel adhesion. Adhesion measured at 180° peel angle (ASTM D 3330) at 12 inches/minute.

Chemical Resistance:

	Adhesion to Stainless Steel		Appearance	Edge Penetration
Chemical	**Oz./in.**	**N/100 mm**	**Visual**	**Millimeters**
Isopropyl Alcohol	54	59	No change	1
Detergent 1% Alconox® Cleaner	66	72	No change	0
Engine Oil (10W30) @ 250°F (121°C)	70	77	No change	1.5
Water for 48 hours	72	79	No change	0
pH 4	70	77	No change	0
pH 10	66	72	No change	0
409® Formula	65	71	No change	0
Toluene	29	32	No change	6.3
Acetone	38	42	No change	4.5
Brake Fluid	77	84	No change	0
Gasoline	32	35	No change	5.5
Diesel Fuel	55	60	No change	1
Mineral Spirits	48	52	No change	2.3
Hydraulic Fluid	58	63	No change	0

Temperature Resistance: When applied to stainless steel. Other substrates should be tested per application.

300°F (149°C) for 24 hours: no significant visual change
0.7% MD shrinkage
0.8% CD shrinkage

-40°F (-40°C) for 10 days: no significant visual change

Humidity Resistance:

24 hours at 100°F (38°C) and 100% relative humidity: no significant change in appearance or adhesion

Accelerated Aging:

ASTM D 3611: 96 hours at 150°F (65°C) and 80% relative humidity

Product		Rate of Removal	Gram/Inch Width	N/100 mm
3M™ Thermal Transfer Polyester Label Material 7816 & 7875	180° Removal of Liner from Facestock	90 inches/minute	11	0.42
3M™ Thermal Transfer Polyester Label Material 7816FL	180° Removal of Liner from Facestock	90 inches/minute	8	0.31
3M label material 7816 & 7875	180° Peel Adhesion from Stainless Steel	12 inches/minute	49	1.89
3M label material 7816FL	180° Peel Adhesion from Stainless Steel	12 inches/minute	49	1.89

3M™ Thermal Transfer Polyester Label Materials
7816 • 7816FL • 7875

Application Techniques

For maximum bond strength, the surface should be clean and dry. Typical cleaning solvents are heptane and isopropyl alcohol.*****

For best bonding conditions, application surface should be at room temperature or higher. Low temperature surfaces, below 50°F (10°C), can cause the adhesive to become so firm that it will not develop maximum contact with the substrate. Higher initial bonds can be achieved through increased rubdown pressure.

*****When using solvents, read and follow the manufacturer's precautions and directions for use.

Printing

Facestock is topcoated for improved ink receptivity and is designed for thermal transfer printing. It is printable by all standard roll processing methods including flexography, hot stamp, letterpress, and screen printing.

Thermal Transfer Printing

Printer: UL no longer requires evaluation and listing of specific printers.

Ink Ribbon/UL Recognized Components

Advent: 301 Black; 303 Black; 501 Black; 501 Red; 501 Blue; 501 Green

Armor: AXR-7; AXR-7+; AXR-600

Astromed: R5

CP: 5440 Red; 5640 Blue; 5940 Black

Dasco: DR-74; DR-84

Great Ribbon: SDR

Iimak: SH-36; SP-330; PrimeMark

Intermec: 053258-2; 054048-4

ITW: B324

Japan Pulp and Paper: JP Resin 1; JP Resin 2 Blue; JP Resin 2 Red (suitable for indoor use only); JP Resin 2 Green (suitable for indoor use only)

Kurz: K500; K501

Markem: 716 (suitable for indoor use only)

Mid City Columbia: CGL-80; CGL-80HE

NCR: Matrix Resin; Matrix; PaceSetter; Promark II; Ultra V

Pelikan: T016

Ricoh: B110A; B110C; B110CX

Sato: Premier 1

Sony: 4070; 4072; 4075; 4085; 5070; Signature Series Resin; Signature Series Wax

UBI: HR03; HR04

Zebra: 5095; 5099; 5100; 5175

3M™ Thermal Transfer Polyester Label Materials
7816 • 7816FL • 7875

Die Cutting / Converting	Rotary die cutting is recommended. Fanfolding of labels is not recommended. Small labels should be evaluated carefully. Winding tensions should be kept at a minimum to help prevent the adhesive from oozing.
Packaging	Finished labels should be stored in plastic bags.
Storage	Store at room temperature conditions of 72°F (22°C) and 50% relative humidity.
Shelf Life	If stored under proper conditions, product retains its performance and properties for two years from date of manufacture.
Technical Information	The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.
Product Use	Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.
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ISO 9001:2000

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.

3M

Industrial Adhesives and Tapes Division
Converter Markets

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800-422-8116 • 877-722-5072 (fax)
www.3M.com/converter

Recycled Paper
40% pre-consumer
10% post-consumer

Attached are several photos of the unit as it is removed from the box

The unit is sold with the rear mounting bracket attached.

When the mounting bracket is removed and is positioned for use the rear of the device can be observed

The label is placed on the rear of the device.

The rear of the device is a clear resin face as the circuit board is potted.

Once potted the compliance label attached in the position shown.

The back is loosely placed in position and it is inserted into the box.

When the customer gets it and the first thing they do, as the back falls off, is retrieve the back/mounting plate to screw the back/mounting plate to where it is to be mounted.

i.e. A wall.

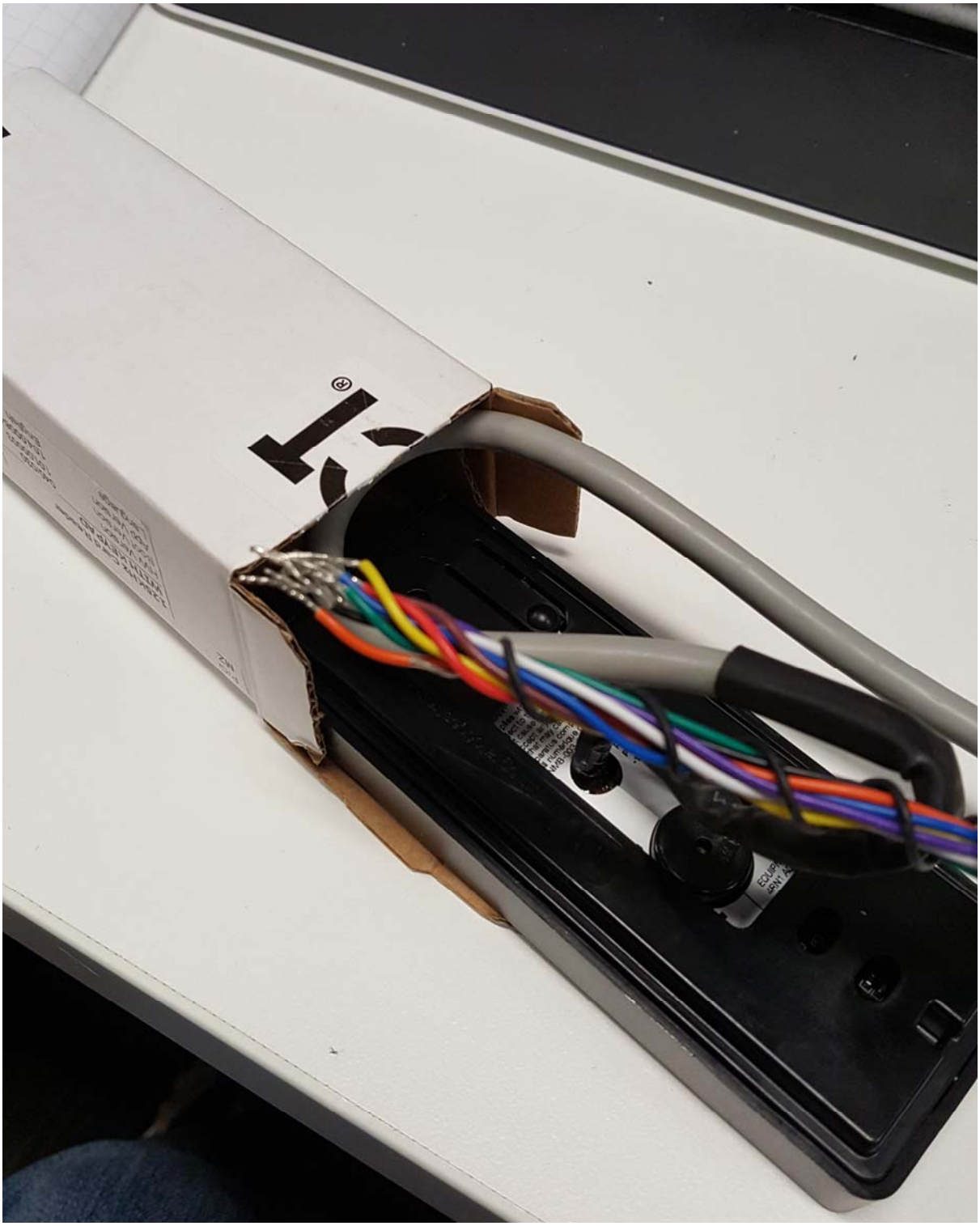
This would make it easily visible out of the box.

The label is partially visible before the back is retrieved and fully visible when the back is off.

When the unit is in its final resting place it has a small locking screw inserted in the bottom to lock the unit onto the back/mounting plate.

Also the FCC statement is in the manual.

VW-1




LISTED
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EQUIPMENT: 4RN1
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Brown LED BLUE
Orange LED GREEN
White DATA 1
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Red +12V
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