

# **Complete Labeling Solutions**

Commercial Aerospace
Military Defense
Mass Transit
Commercial Marine

# **Expect Performance.**

Brady offers outstanding solutions in extreme environments for aircraft, military vehicles, ships, trains and other mass transit systems that demand high performance identification products. When you choose Brady, you get the total solution. We make sure you have everything from the materials to the printers to the software to the expert support you need — every step of the way.



## **Developed In-House, by our Experts**

As a leader in wire and component identification, Brady's team of scientists and engineers work to provide you with innovative products of the highest technological quality. Brady's Tobey Research Center material scientists rigorously test all of our products in-house to ensure high performance, industry compliance, durability and reliability.

- Over 200 technologists in laboratory sites around the world
- More than 20 label material patents and growing
- Electro-mechanical, materials and software development teams



# The Identification Company you Trust

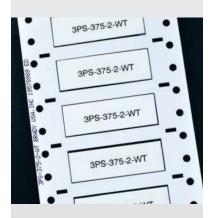
Since 1914, Brady has been making identification products and has evolved along with our customers' needs. Brady works with you to understand your processes and find ways to reduce costs, improve productivity and increase facility performance. We cover a large spectrum of identification needs from smaller, mobile applications to sophisticated, integrated high-volume needs. Brady's solutions approach provides flexibility to keep your processes running smoothly.

- Customized solutions to fit your work flow and improve applied label cost
- Strong distribution network to ensure product availability
- Expert technical support for all of your product questions
- Knowledgeable sales force with years of industry experience

# Demand Brady.







#### **Designed to Last. Engineered to Perform**

The materials developed by Brady scientists are designed for a wide spectrum of applications and environments. Brady's in-depth knowledge of the conditions that products face requires extensive testing in harsh environments, including:

- Chemical and fuels: Skydrol®, JP-8 Jet Fuel and brake fluids
- Temperatures from -70°C to 225°C
- Zero-halogen and low out-gassing options

Brady's products are not only designed to withstand the harshest of environments, but also designed with the user in mind. We spend time getting to know our customers in order to understand what you need from our products. That means our heat shrink tubing products are:

- Quick and easy to remove from the carrier no need to cut or tear the sleeve
- Printed with the part numbers along the carrier for easy identification, even after portions are removed from the original roll and shipped to different locations

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# **Build Your Identification Solution**

## **Build Your Complete Solution**

Identification solutions consist of three main components, thermal transfer printers, highly engineered identification materials and label design software. With Brady, it doesn't stop there. We go beyond these three components and combine them with expert support, knowledge and service to give you a better identification experience.



## **Expertly Engineered Materials**

Our high performance identification materials offer outstanding performance in extreme environments. Brady gives you a variety of options for your application and work with you to select the best type to meet your needs.

- Heat shrink tubing
- Wire wrap labels
- Flat surface and component labels
- Fluid line tapes
- Wire, cable and bundle tags



# **On-Demand Printing Solutions**

From small, hand-held printers for on-the-job applications to large, industrial units for high-volume printing, Brady's proven printing solutions help you create clear, professional-looking identification that has the durability to withstand even the harshest environments.

- Integrates into your processes
- Prints up to 20,000 labels per day
- Prints on a range of our expertly engineered materials
- Easiest and most versatile printing solutions in the industry



## **Robust Label Design Software**

Our LabelMark™ software is the final piece to your identification solution. Whether you need to print high volumes of labels or set-up batch printing and printer pairing, LabelMark software can improve the efficiency of your label creation process. Developed and tested internally, LabelMark software is continuously updated with improved features based on user feedback.

- Engineered to take the cost out of label design process
- Adaptable to a range of work flows
- Easily accessible post-sale technical support



# **Material Comparison Chart**

	Product Name	Description	Temp Range	Specs	Compliance	Rec. Ribbon Series	Printer Compatibility
Heat Shrink Tubing	PS & 3PS: B-342	3:1 ratio heat shrinkable tubing	-55°C (-67°F) to +135°C (275°F)	MIL-STD-202, Method 215K, SAE-AMS-DTL-23053/5 (Class 1), SAE-AS-81531	RoHS UL Recognized	R4300 R6600	BMP®71 BBP®33 PR PLUS / IP BBP®72
Total Control of the	HX & 2HX: B-7642	2:1 ratio heat shrinkable tubing	-55°C (-67°F) to +135°C (275°F)	SAE-AMS-DTL-23053/5 (Class 1 & 3 ), SAE-AS-81531, MIL-STD-202, Method 215K	RoHS	R4300 R6400 R6600	BBP®33 PR PLUS BBP®72
T. Zagal	ZH & 2ZH: B-7641	2:1 ratio halogen-free heat shrinkable tubing	-30°C (-22°F) to +105°C (221°F)	SAE-AS-81531, MIL-STD-202, Method 215K, DIN VDE 0472 part 815	RoHS	R4300 R6000 R6600	PR-PLUS BBP®72
	3HT & 2HT: B-345	2:1 ratio low outgassing high temperature heat shrinkable tubing	-55°C (-67°F) to +225°C (437°F)	SAE-AS-81531, MIL-STD-202G, Method 215K, NASA SP-R-0022A, SAE-AMS-DTL-23053/18 (Class 2)	RoHS	R6000 R6600	BMP®71 BBP®33 PR PLUS / IP BBP®72
	DR & 3DR: B-7646	3:1 ratio diesel resistant heat shrinkable tubing	-55°C (-67°F) to +135°C (275°F)	MIL-STD-202, Method 215K, SAE-AS-81531, NF F 00-608 (Types A & H)	RoHS	R6600	PR PLUS BBP®72
Wire Wrap Labels	B-427	Self-laminating & self-extinguishing wire wrap label	-40°C (-40°F) to +70°C (158°F)		RoHS UL Recognized	R4300 R4500	BMP®71 BBP®33 PR PLUS / IP WRAPTOR™
17.18 17.10 17.18 17.18	B-642	Teldar® self-extinguishing, self-laminating wire wrap	-70°C (-94°F) to +120°C (248°F)		RoHS	R4300 R6200 Dot Matrix: R2000 R5000	BMP®71 PR PLUS DOT MATRIX WRAPTOR™
	B-472	Matte finish self-extinguishing wire-wrap label	-70°C (-94°F) to +135°C (275°F)	AS81531, MIL-STD-202, Method 215k	RoHS	R4300 R6200 Dot Matrix: R2000	PR PLUS / IP WRAPTOR™ DOT MATRIX
	B-437	Tedlar® self extinguishing wire wrap label	-70°C (-94°F) to +135°C (275°F)	MIL-M-87958	RoHs	R4300 R6200	BMP®71 PR PLUS / IP
	B-637	Tedlar® self-extinguishing wire-wrap label	-70°C (-94°F) to +135°C (275°F)	MIL-M-87958	RoHs	Dot Matrix: R2000 R5000	DOT MATRIX
	B-498	Vinyl-cloth repositionable wire wrap label	-40°C (-40°F) to + 80°C (176°F)		RoHS UL Recognized	R6200	BMP®71 BBP®33 PR PLUS / IP
	B-499	Nylon cloth wire-wrap label	-40°C (-40°F) to + 90°C (194°F)	DIN VDE 0472 part 815	RoHS UL Recognized CSA	R4300 R4900 R6000 R6200	BMP®71 BBP®33 PR PLUS / IP WRAPTOR™
	B-330	Wire bundle and large conduit heat shrintable wrap material	-70°C (-94°F) to +110°C (230°F)	MIL-STD-202, Method 215K, SAE-AS-81531		R4300 R6200 Dot Matrix: R2000 R5000	PR PLUS DOT MATRIX
Flat Surface & Component Labels	B-423	Glossy polyester flat-surface label	-70°C (-94°F) to +110°C (230°F)	DIN VDE 0472 part 815	RoHS UL Recognized CSA	R6000 R4400	BMP®71 BBP®33 PR PLUS / IP
THE PRODUCT OF THE PROPERTY OF	B-483	Glossy-polyester label for rough surfaces	-40°C (-40°F) to +120°C (248°F)		RoHS UL Recognized CSA	R6000 R4400 R4900	BMP®71 BBP®33 PR PLUS / IP
	B-593	Raised profile label	-20°C (-4°F) to +100°C (212°F)		UL Recognized, cUL Recognized, RoHS	R6000 R4400	BMP®71 BBP®33 PR PLUS / IP
Fluid Line Tapes	B-992	Glossy self-laminating fluid line tape	-40°C (-40°F) to +150°C (302°F)	LMA-MF099 LMA-MF092B LMA-MF093C LMA-MF094C FMS-3099A		R6000	PR PLUS
=======================================	B-999	Heat-activated fluid line tape	-65°C (-85°F) to +110°C (230°F)	Boeing BPS-T-151		R4900 R7961 Dot Matrix: R2000 R5000	PR PLUS WRAPTOR™ DOT MATRIX
Tag Materials	B-508	Nomex® low outgassing cable and harness marking tag	-70°C (-94°F) to +130°C (266°F)	SAE-AS-81531, MIL-STD-202, Method 215K	RoHS	R4300 Dot Matrix: R2000 R5000	PR PLUS DOT MATRIX

# **Printer Comparison Chart**









# **Thermal Transfer Printers**

	BMP®71 Label Printer	BBP®33 Label Printer	Brady IP™ Printer	Bradyprinter™ PR Plus Printer	BBP®72 Double Sided Printer
Short Description	Portable printer that features a rechargeable battery for printing labels at the point of need.	Small footprint, desktop printer featuring hassle- free printing where smart chip supplies automatically set up the label, eliminating calibration and label waste.	High-performance printing with smart cell supplies, alowing printer, materials and ribbon to communicate. Makes set-up and changeovers faster, easier and less wasteful.	Heavy-duty, high speed, high volume printer. Prints on widest selection of materials. Best option for high volume heat shrink tubing printing.	High volume printer designed specifically for printing heat shrink tubing with two printable sides.
Max Throughput/Capacity	1,000 labels per day	3,000 labels per day	5,000 labels per day	7,000 labels per day	7,000 labels per day
DPI	300 dpi	300 dpi	300 or 600 dpi	300 or 600 dpi	300 dpi
Max Print Width	2"	4"	4.160"	4.160"	4.160"
Max Print Speed	1.5"/sec (38mm/sec)	4"/sec (101.6mm/sec)	8"/sec (203.2mm/sec)	9.8"/sec (248.92mm/sec)	9.8"/sec (248.92mm/sec)
Single or Double Sided Printing	Single	Single	Single	Single	Double
Materials Types Supported	Heat Shrink Tubing Wire Wrap Labels Flat Surface and Component Labels Fluid Line Tapes Tag Materials Tamper Evident Labels	Heat Shrink Tubing Wire Wrap Labels Flat Surface and Component Labels Fluid Line Tapes Tag Materials Tamper Evident Labels	Heat Shrink Tubing Wire Wrap Labels Flat Surface and Component Labels Tag Materials Tamper Evident Labels	Heat Shrink Tubing Wire Wrap Labels Flat Surface and Component Labels Fluid Line Tapes Tag Materials Tamper Evident Labels	Heat Shrink Tubing (Double Sided Sleeves Only)
Connectivity/Networking	PC Connect via USB	Network ready via ethernet PC Connect via USB	Network ready via ethernet PC Connect via Serial, USB and Parallel	Network ready via ethernet PC Connect via USB	Network ready via ethernet PC Connect via USB
Color Printing Capabilities	Single Color	Single Color	Single Color	Single Color	Single Color
Software Compatibility	LabelMark™, MarkWare™	LabelMark™, MarkWare™, CodeSoft™	LabelMark™, CodeSoft™	LabelMark™, CodeSoft™	LabelMark™, CodeSoft™



# Print and Apply Machine

Apply Macillic	
	Wraptor™ Wire ID Printer
Short Description	Specialty system that prints and applies labels to wire, cable and wire harnesses. Can be used in-line with cut and strip equipment or stand alone.
Max Throughput/Capacity	7,000 labels per day
DPI	300 dpi
Max Print Width	2"
Max Print Speed	4.5-5 second cycle
Single or Double Sided Printing	Single
Materials Types Supported	Vinyl Cloth, Self-Laminating Vinyl, Polymide Labels
Connectivity/Networking	PC Connect
Color Printing Capabilities	Single Color
Software Compatibility	LabelMark™, CodeSoft™



Select job, insert wire or cable.



Wraptor prints and wraps in under 5 seconds!



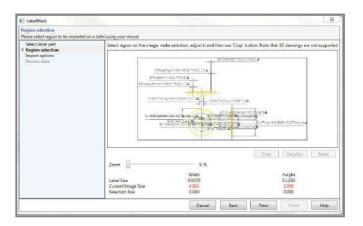
# LabelMark<sup>™</sup> Label Design Software



LabelMark™ Labeling Software integrates data sources, label design and batch printing into one cohesive system, a time-saving solution for operation label set-up, management and execution. Brady knows there are features critical to the success of your identification process, so we've designed our software to make sure your needs are always covered.

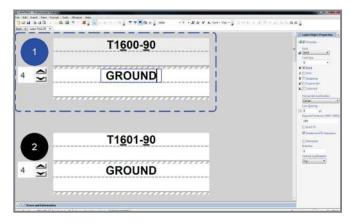
- Single-click serialization
- Custom label material formats
- Barcode creation both 1D and 2D symbologies
- Batch printing store and print multiple label files in one job file

LabelMark software offers unmatched flexibility, power and support for label printing to help you achieve all of your industrial identification needs.



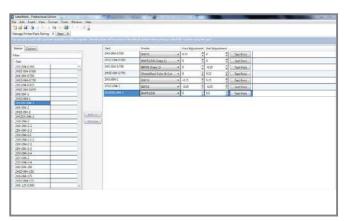
#### **Import External Data**

Easily imports data from AutoCAD applications, reducing the chance for human error and saving label creation time.



## **Two-sided Sleeve Design**

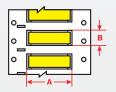
With our robust offering of two sided printable sleeves, you need an easy way to see and design both printable sides in an easy-to-use format. LabelMark provides this and even underlines the 6's and 9's to take the guess work out of numbering.



## **Label Part & Printer Pairing**

When you need to pair multiple label types with specific printers, you set up the pairing once and you're done. Afterwards, each time the part is printed, it is sent directly to its paired printer.





#### **Available Colors**

White (WT)	Orange (OR)
Yellow (YL)	Black (BK)
Pink (PK)	Brown (BR)
Red (RD)	Gray (GY)
Blue (BL)	Violet (VT)
Green (GR)	

#### Scan for Detailed Technical Information



Enter "B-342", the material number.

# PermaSleeve® PS/3PS Wire Markers: B-342

PermaSleeve® PS Wire Markers, B-342, fit snugly around wires for protection and permanent identification. They are fade-resistant, smudge-proof and provide full-circle insulation.

Shrink Ratio: 3:1

**Temperature Range:** -55°C (-67°F) to 135°C (275°F)

Splice Tape Color: Blue

#### Specifications\*:

SAE-AMS-DTL 23053/5 Class 1

■ SAE-AS-81531

■ MIL-STD-202, Method 215k

RoHS compliantUL Recognized

# **PS/3PS Material Options (B-342)**

#### Find the Sleeve Size for Your Wire Diameter

Outer Wire Diameter in (mm)	Wire Gauge	Sleeve Size (B)
0.023" - 0.080" (0.58 - 2.03)	28 to 20	3/32" (094)
0.046" - 0.110" (1.17 – 2.79)	22 to 16	1/8" (125)
0.062" - 0.150" (1.57 – 3.81)	20 to 10	3/16" (187)
0.094" - 0.215" (2.39 – 5.46)	16 to 8	1/4" (250)
0.125" - 0.320" (3.18 – 8.13)	12 to 4	3/8" (375)
0.187" - 0.450" (4.75 – 11.43)	8 to 1	1/2" (500)
0.250" - 0.700" (6.35 – 17.78)	6 to 4/0	3/4" (750)
0.333" - 0.950" (8.46 – 24.13)	2 to .950 dia	1" (1000)
0.500" - 1.450" (12.7 - 36.83)	Larger than 4/0	1-1/2" (1500)

#### Sleeve Widths (A)

1 ½" 2"

#### **Number of Printable Sides**

One Sided Two Sided

#### **Roll Quantities**

Tested per: ■ ASTM E162

■ ASTM E662

Various roll quantity sizes available, including:

- Small (20% 40% of a standard roll)
- Standard
- Jumbo (2x 4x a standard roll)

#### **Slit and Perforation**

2, 3 or 4 pieces



Example shows sleeve split into 3 pieces

#### **Printer and Ribbon Compatibility**



BBP°72
DOUBLE SIDED PRINTER
BP°PR300+
THERMAL TRANSFER PRINTER



BBP°33



Standard Black: R4300 Series

R4300 Series

Standard Black: R4300 Series

High Performance Black:

High Performance Black: R6600 Series

High Performance Black: R6600 Series

R6600 Series

Standard Silver: R4500 Series

Standard Black:

Standard White: R6700 Series

Not all material options available for every printer.



<sup>\*</sup> When printed with recommended ribbons below

# PermaSleeve® HT Wire Markers: B-345

PermaSleeve® HT Wire Markers, B-345 are specifically designed for high temperature and low outgassing applications. Made from irradiated high temperature PVDF, these sleeves are durable, reliable and highly flame retardant.

Tested per:

ASTM E162ASTM E662

Shrink Ratio: 2:1, 094 size is 3:1 ratio

**Temperature Range:** -55°C (-67°F) to 225°C (437°F)

Splice Tape Color: Yellow

#### Specifications\*:

■ SAE-AS-81531

■ SAE-AMS-DTL-23053/18, Class 2

■ MIL-STD-202, Method 215k

■ NASA SP-R-0022A Vacuum Outgassing Performance

■ RoHS compliant

# **2HT/3HT Material Options (B-345)**

#### Find the Sleeve Size for Your Wire Diameter

Outer Wire Diameter in (mm)	Wire Gauge	Sleeve Size (B)
0.031" - 0.080" (0.60 - 2.03)	26 to 20	3/32" (094*)
0.063" - 0.110" (1.20 - 2.79)	20 to 16	1/8" (125)
0.094" - 0.150" (1.60 – 3.81)	16 to 10	3/16" (187)
0.125" - 0.215" (2.40 - 5.46)	12 to 8	1/4" (250)
0.187" - 0.320" (3.20 - 8.13)	8 to 4	3/8" (375)
0.250" - 0.450" (6.35 - 11.43)	6 to 1	1/2" (500)
0.375" - 0.700" (9.53– 17.78)	2 to 4/0	3/4" (750)
0.450" - 0.950" (11.40 - 24.13)	2/0 to .950 dia	1" (1000)
0.750" - 1.450" (19.05 – 36.83)	Larger than 4/0	1-1/2" (1500)

#### Sleeve Widths (A)

2"

#### **Number of Printable Sides**

Two Sided

#### Slit and Perforation

2, 3 or 4 pieces



Example shows sleeve split into 3 pieces

**Roll Quantities** 

#### including:

Various roll quantity sizes available, including:

- Small (20% 40% of a standard roll)
- Jumbo (2x 4x a standard roll)

#### **Printer and Ribbon Compatibility**



BBP°72
DOUBLE SIDED PRINTER
BP°PR300+
THERMAL TRANSFER PRINTER



BBP°33

Standard Black: Standard Black: R6000 Series R6000 Series

High Performance Black: High Performance Black:

R6600 Series

Standard White:

R4400W Series

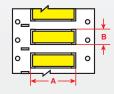
R6600 Series

Standard Silver:

R4400W Series

Not all material options available for every printer.





#### **Available Colors**

White (WT)	ı
Yellow (YL)	ı
Pink (PK)	_

Blue (BL) Black (BK)

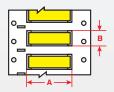
# Scan for Detailed Technical Information



Enter "B-345", the material number.

<sup>\*</sup> When printed with recommended ribbons below





#### **Available Colors**

White (WT)	Orange* (OR)
Yellow (YL)	Black (BK)
Red* (RD)	Gray* (GY)
Blue* (BL)	Violet* (VT)
Green* (GR)	

<sup>\*</sup> Only available as special order

#### Scan for Detailed **Technical Information**



Enter "B-7641", the material number.

# PermaSleeve® ZH Wire Markers: B-7641

PermaSleeve® ZH Wire Markers, B-7641, are halogen-free and are available in a 2:1 shrink ratio. The wire markers offer outstanding fire safety properties and minimal smoke emission.

Shrink Ratio: 2:1

Temperature Range: -30°C (-22°F) to 105°C (221°F)

Splice Tape Color: Clear

#### Specifications\*:

■ SAE-AS-81531

■ MIL-STD-202, Method 215k

RoHS compliant

Halogen-Free (DIN VDE 0472 part 815)

# **ZH/2ZH Material Options (B-7641)**

#### Find the Sleeve Size for Your Wire Diameter

Outer Wire Diameter in (mm)	Wire Gauge	Sleeve Size (B)
0.031" - 0.080" (0.60 - 2.03)	24 to 20	3/32" (094*)
0.063" - 0.110 (1.20 – 2.79)	20 to 16	1/8" (125)
0.094" - 0.150" (1.60 – 3.81)	16 to 10	3/16" (187)
0.125" - 0.215" (2.40 – 5.46)	12 to 8	1/4" (250)
0.187" - 0.320" (3.20 - 8.13)	8 to 4	3/8" (375)
0.250" - 0.450" (6.35 – 11.43)	6 to 1	1/2" (500)
0.375" - 0.700" (9.53– 17.78)	2 to 4/0	3/4" (750)
0.450" - 0.950" (11.40 – 24.13)	2/0 to .950 dia	1" (1000)
0.750" - 1.450" (19.05 – 36.83)	Larger than 4/0	1-1/2" (1500)
1.000" - 1.900" (25.40 - 48.26)	N/A	2" (2000)

#### Sleeve Widths (A)

11/2" 2"

3" (for 1", 1½" & 2" diameter sleeve sizes only)

#### **Number of Printable Sides**

One Sided Two Sided

#### Slit and Perforation

2, 3 or 4 pieces

Tested per: ■ ASTM E162

■ ASTM E662



Example shows sleeve split into 3 pieces

#### **Roll Quantities**

Various roll quantity sizes available, including:

- Small (20% 40% of a standard roll)
- Standard
- Jumbo (2x 4x a standard roll)

#### **Printer and Ribbon Compatibility**





Standard Black: Standard Black: R4300, R6000 Series R4300, R6000 Series High Performance Black: High Performance Black:

R6600 Series R6600 Series Not all material options available for every printer.





<sup>\*</sup> When printed with recommended ribbons below

## PermaSleeve® HX Wire Markers: B-7642

PermaSleeve® HX Wire Markers, B-7642, fit snugly around wires for protection and permanent identification. The sleeves are highly flame retardant and very flexible.

> Tested per: ■ ASTM E162

■ ASTM E662

Shrink Ratio: 2:1

**Temperature Range:** -40°C (-40°F) to 160°C (320°F)

Splice Tape Color: Red

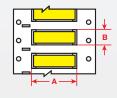
#### Specifications\*:

■ SAE-AS-81531

■ SAE-AMS-DTL-23053/5, Class 1

■ MIL-STD-202, Method 215k

RoHS compliant



#### **Available Colors**

White (WT)	Orange (OR)
Yellow (YL)	Black (BK)
Red (RD)	Gray (GY)
Blue (BL)	Violet (VT)
Green (GR)	

#### Scan for Detailed **Technical Information**



Enter "B-7642", the material number.

# **HX/2HX Material Options (B-7642)**

#### Find the Sleeve Size for Your Wire Diameter

Outer Wire Diameter in (mm)	Wire Gauge	Sleeve Size (B)
0.047" - 0.080" (1.19 - 2.03)	24 to 20	3/32" (094*)
0.063" - 0.110" (1.20 – 2.79)	20 to 16	1/8" (125)
0.094" - 0.150" (1.60 – 3.81)	16 to 10	3/16" (187)
0.125" - 0.215" (2.40 – 5.46)	12 to 8	1/4" (250)
0.187" - 0.320" (3.20 - 8.13)	8 to 4	3/8" (375)
0.250" - 0.450" (6.35 – 11.43)	6 to 1	1/2" (500)
0.375" - 0.700" (9.53– 17.78)	2 to 4/0	3/4" (750)
0.450" - 0.950" (11.40 – 24.13)	2/0 to .950 dia	1" (1000)
0.750" - 1.450" (19.05 – 36.83)	Larger than 4/0	1-1/2" (1500)
1.000" - 1.900" (25.40 - 48.26)	N/A	2" (2000)

#### Sleeve Widths (A)

11/2" 2"

3" (for 1", 11/2" & 2" diameter sleeve sizes only)

#### **Number of Printable Sides**

One Sided Two Sided

#### Slit and Perforation 2, 3 or 4 pieces



Example shows sleeve split into 3 pieces

#### **Roll Quantities**

Various roll quantity sizes available, including:

- Small (20% 40% of a standard roll)
- Standard
- Jumbo (2x 4x a standard roll)

#### **Printer and Ribbon Compatibility**





**BBP**°33



Standard Black: R4300 Series

High Performance Black: R6400. R6600 Series

Standard Black: R4300 Series

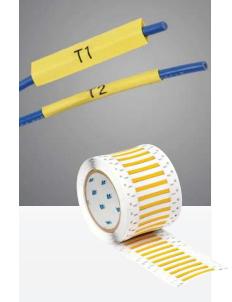
High Performance Black: R6400, R6600 Series

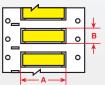
Standard Black: R4300 Series

High Performance Black: R6400, R6600 Series

Not all material options available for every printer.

<sup>\*</sup> When printed with recommended ribbons below





#### **Available Colors**

Yellow (YL)

#### Scan for Detailed Technical Information



Enter "B-7646", the material number.

# PermaSleeve® DR Wire Markers: B-7646

PermaSleeve® DR Wire Markers, B-7646, are resistant to organic fluids, common fuels, lubricants and solvents. They fit snugly around wires for protection and permanent identification.

Shrink Ratio: 3:1

**Temperature Range:** -55°C (-67°F) to 135°C (275°F)

Splice Tape Color: Clear

#### Specifications\*:

- SAE-AS-81531
- MIL-STD-202, Method 215k
- NF F 00-608 (types A and H)
- RoHS compliant

# **DR Material Options (B-7646)**

#### Find the Sleeve Size for Your Wire Diameter

Outer Wire Diameter in (mm)	Wire Gauge	Sleeve Size (B)	
0.046" - 0.110" (1.17 – 2.79)	22 to 16	1/8" (125)	
0.062" - 0.150" (1.57 – 3.81)	20 to 10	3/16" (187)	
0.094" - 0.215" (2.39 – 5.46)	16 to 8	1/4" (250)	
0.125" - 0.320" (3.18 – 8.13)	12 to 4	3/8" (375)	
0.187" - 0.450" (4.75 – 11.43)	8 to 1	1/2" (500)	

Sleeve Widths (A)

**Roll Quantities** 

\_\_

Standard

#### **Number of Printable Sides**

Two Sided

#### Slit and Perforation

2, 3 or 4 pieces



Example shows sleeve split into 3 pieces

#### **Printer and Ribbon Compatibility**



High Performance Black: R6600 Series

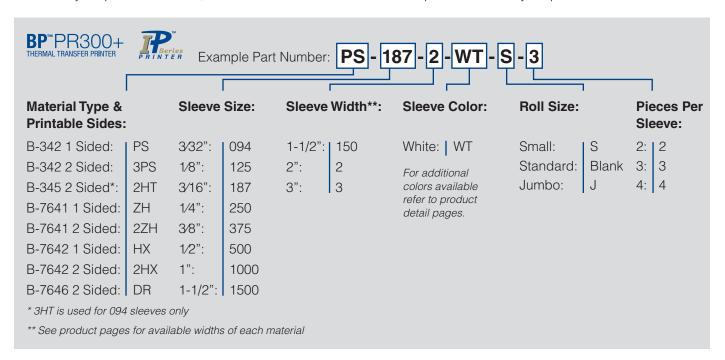
Not all material options available for the printer.

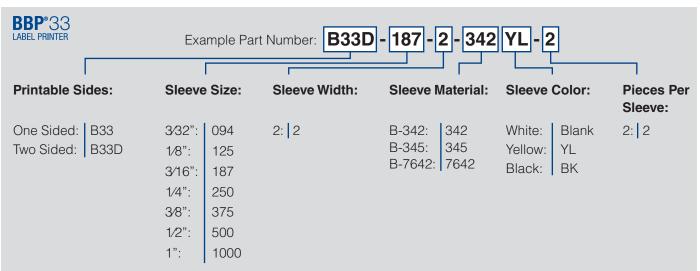


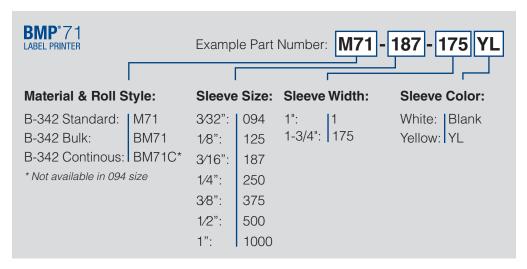
<sup>\*</sup> When printed with recommended ribbons below

# **Build Your PermaSleeve® Part Number**

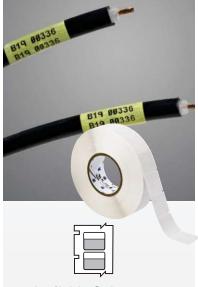
Based on your printer selection, choose the PermaSleeve® material options to create your part number.











#### **Available Colors**



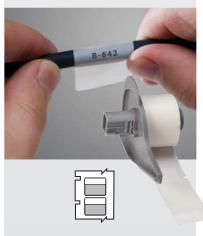


\* Available in select sizes for the BMP®71 printer only.

#### Scan for Detailed Technical Information



Enter "B-427", the material number.



#### **Available Colors**

White

# Scan for Detailed Technical Information



Enter "B-642", the material number.



# **Self-Laminating Wire Marking Labels: B-427**

B-427 Self-Laminating Vinyl Wire Marking Labels feature a white printable area with a clear "tail" that wraps over the printed legend. This protects the printed text from water, solvents, abrasion, oil and dirt.

**Temperature Range:** -40°C (-40°F) to 70°C (158°F)

Available in Sizes for Wire Diameters: 0.079" (2.02 mm) - 0.954" (24.25 mm) Specifications\*:

- UL recognized
- RoHS compliant
- \* With approved ribbons and surfaces

#### **Printer and Ribbon Compatibility**



BP"PR300+ THERMAL TRANSFER PRINTER







Standard Black: R4300 Series

Standard Colors: R4500 Series

Standard Black: R4300 Series Standard Silver:

R4500 Series

Standard Black: R4300 Series

Standard Black: R4300 Series

# **Self-Laminating Self-Extinguishing Wire Wrap Labels: B-642**

Tedlar® B-642 Wire Wraps are self-extinguishing and self-laminating with good solvent and heat resistance. This material is a thin tape with excellent flexibility for wrapping on small diameter wires. Features a white printable area with a "clear" tail that wraps over printed legend. This material is intended for cable and wire bundle applications where self-extinguishing properties are required.

Temperature Range: -70°C (-94°F) to 120°C (248°F)

Available in Sizes for Wire Diameters: 0.159" (4.04 mm) & up

#### Specifications\*:

■ RoHS compliant

\* With approved ribbons and surfaces

#### Tested per:

- ASTM G155, Cycle 1
- ASTM B 117

#### **Printer and Ribbon Compatibility**



R6200 Series

Wraptor,



Standard Black: Standard Black: R4300 Series R4300 Series

High Performance Black: High Performance Black:

R6200 Series

This material is dot matrix printable on a variety of dot matrix printers using Brady R2000 and R5000 dot matrix ribbons.

# **Self-Extinguishing Wire Wrap Labels: B-472**

B-472 Polymide Wire Wraps are highly flame-retardant and specifically designed for wire and cable identification applications where self-extinguishing and flame retardant properties are an absolute requirement. In addition, B-472 can also be used for component labeling and Unique Identification (UID) labeling.

**Temperature Range:** -70°C (-94°F) to 135°C (275°F)

Available in Sizes for Wire Diameters: 0.063" (1.61 mm) & up

#### Specifications\*:

- RoHS compliant
- SAE-AS81531
- MIL-STD-202 (Method 215 K)

#### Tested per:

- ASTMD 1000 (Flammability)
- ASTM E162 (Flame Spread)
- ASTM E662 (Flame Emission)

# **Printer and Ribbon Compatibility**



Standard Black: R4300 Series

High Performance Black: R6200 Series



Standard Black: R4300 Series

High Performance Black:



Standard Black: R4300 Series

High Performance Black: R6200 Series

WRAPTOR.

#### Scan for Detailed **Technical Information**

Orange

Gray

Violet

**Available Colors** 

PANEL

Continuous



Die-Cut

White Yellow

Pink

Blue

Enter "B-472". the material number.



R6200 Series



<sup>\*</sup> With approved ribbons and surfaces

# **B1 B1** B1 B1 Die-Cut **Continuous**



#### Scan for Detailed **Technical Information**



Enter "B-437", the material number.

# PANEL B 15V PANEL B 15V PANEL B

**Scan for Detailed Technical Information** 



Enter "B-637". the material number.

# OBRADY

# **Self-Extinguishing Wire Wrap Labels: B-437**

Tedlar® Wire Wrap Labels (B-437) are self-extinguishing and exhibit good solvent and heat resistance. This material is intended for cable and wire bundle applications where self-extinguishing properties are required.

**Temperature Range:** -70°C (-94°F) to 135°C (275°F)

Available in Sizes for Wire Diameters: 0.079" (2.02 mm) & up

Specifications\*:

- RoHS compliant ■ Boeing BMS 13-47
- MIL-M-87958
- \* With approved ribbons and surfaces

#### **Available Colors**

White

Yellow

#### **Printer and Ribbon Compatibility**





Standard Black: R4300 Series

High Performance Black: R6200 Series

Standard Black: R4300 Series

High Performance Black: R6200 Series

# **Self-Extinguishing Wire Wrap Labels: B-637**

Tedlar® Dot Matrix Printable Wire Wrap Labels (B-637) are self-extinguishing and exhibit good solvent and heat resistance. This material is intended for cable and wire bundle applications where self-extinguishing properties are required.

ASTM B 117

**Temperature Range:** -70°C (-94°F) to 135°C (275°F)

Available in Sizes for Wire Diameters: 0.063" (1.61 mm) & up

Specifications\*:

Tested per:

- RoHS compliant ■ Boeing BMS 13-47
- MIL-M-87958
- \* With approved ribbons and surfaces

#### **Available Colors**

White

Yellow

#### **Printer and Ribbon Compatibility**

This material is dot matrix printable on a variety of dot matrix printers using Brady R2000 and R5000 dot matrix ribbons.

# Repositionable Wire Wrap Labels: B-498

Repositionable Vinyl Cloth Wire Wrap Labels (B-498) have excellent holding power, while allowing for clean removal and repositioning of the label. Ideal for marking both ends of a wire that you may need to cut shorter before final termination.

Temperature Range: -40°C (-40°F) to 80°C (175°F)

Available in Sizes for Wire Diameters: 0.076" (1.94 mm) & up

#### Specifications\*:

- UL recognized
- RoHS compliant
- \* With approved ribbons and surfaces

#### Tested per:

- ASTM G155, Cycle 1
- ASTM B117
- Fed. Std. 191A (Method 5306)



#### Scan for Detailed **Technical Information**



Brady

B-498

Enter "B-498". the material number.

TZ18

**TZ18** TZ18

#### **Available Colors**

White

# Permanent Adhesive Wire Wrap Labels: B-499

Permanent Adhesive Nylon Cloth Wire Wrap Labels (B-499) are intended for general wire marking and labeling applications.

Temperature Range: -40°C (-40°F) to 90°C (193°F)

Available in Sizes for Wire Diameters: 0.079" (2.02 mm) & up

#### Specifications\*:

- UL recognized
- CSA Accepted
- Halogen-Free per DIN VDE 0472 (part 815)
- RoHS compliant

#### Tested per:

- ASTM G155, Cycle 1
- ASTM D 2979
- Fed. Std. 191A (Method 5306)

White

#### Scan for Detailed **Technical Information**



Enter "B-499". the material number.

#### **Available Colors**

#### B-498 and B-499 Printer and Ribbon Compatibility



**BP**<sup>™</sup>PR300+

Standard Black: R4300, R6000 Series

High Performance Black: R4900\*, R6200 Series

Standard Colors: R4500\* Series



Standard Black: R4300, R6000 Series

High Performance Black: R6200 Series



Standard Black: R4300, R6000 Series

High Performance



Standard Black: R4300, R6000 Series

High Performance Black: R6200 Series Black: R6200 Series

> Standard Colors: R4500\* Series

B-498 is not available for the Wraptor. B-499 is also dot matrix printable using Brady Series R2000 and R5000 dot matrix ribbons.

<sup>\*</sup> With approved ribbons and surfaces



# Scan for Detailed Technical Information



Enter "B-423", the material number.

# **Glossy Flat Surface Labels: B-423**

Polyester labels with a gloss topcoat (B-423) and standard adhesive are intended for use in a variety of applications, including electronic PCB and component identification, bar code labeling, inside-panel component labeling, rating plates and solar panel identification.

**Temperature Range:** -40°C (-40°F) to 110°C (230°F)

- Specifications\*:
- Halogen-Free per DIN VDE 0472 (part 815)
- UL recognized

- RoHS compliant
- CSA Accepted
- \* With approved ribbons and surfaces

#### **Available Colors**

White



#### Scan for Detailed Technical Information



Enter "B-483", the material number.

# **Aggressive Adhesive Glossy Flat Surface Labels: B-483**

Gloss White Polyester Labels (B-483) with an ultra aggressive adhesive specifically designed for high adhesion to textured metals and low surface energy plastics. This material is also ideal for applications requiring adhesion to powder coated surfaces.

**Temperature Range:** -40°C (-40°F) to 120°C (248°F)

#### Specifications\*:

- UL recognized
- RoHS compliant

- CSA Accepted
- \* With approved ribbons and surfaces

#### **Available Colors**

White

#### B-423 and B-483 Printer and Ribbon Compatibility



Standard Black: R4900 Series

High Performance Black: R6000 Series

Standard Colors: R4400 Series (red, blue, green, white)









Standard Black: R6000 Series Standard White: R4400W Series



# **Raised Profile Labels: B-593**

Raised Profile Labels (B-593) are constructed with a gloss polyester printable surface and an aggressive foam backed adhesive. This provides nameplate-like quality and is intended for use in applications such as identifying external push-buttons and switches, as well as rating and serial plates.

Raised profile labels are available in a rectangular format but also with 22.5 and 30.5mm diameter holes to support identification of IEC and NEMA standard push buttons.

**Temperature Range:** -20°C (-4°F) to 100°C (212°F)

#### Specifications\*:

- UL recognized
- cUL recognized
- RoHS compliant

#### **Available Colors**





#### **Printer and Ribbon Compatibility**





Standard White: R4400W Series



Standard Black: R6000 Series

**BBP**°33

Standard White: R4400W Series



Standard Black: R6000 Series







# Scan for Detailed Technical Information



Enter "B-593", the material number.

<sup>\*</sup> With approved ribbons and surfaces







# Scan for Detailed Technical Information



Enter "B-992" or "B-999", the material number.

# **BRADY**

# **Glossy Fluid Line ID Tape: B-992**

Our Self-Laminating Fluid Line Identification Tape (B-992) is a glossy polyester tape with permanent, pressure sensitive acrylic adhesive. It can also have a clear tail for self-laminating the printed legend to provide additional durability. In addition, these tapes can eliminate the need for painting, hot stamping and etching of rigid tube identification.

#### **Specifications:**

- LMA-MF099
- LMA-MF094C
- LMA-MF092B
- FMS-3099A
- LMA-MF093C

# Series1 B-992 Fluid Line Tape

Continuous laminated tape that is 1" wide can fit various diameter tubes and pipes. Tape comes preprinted with MIL-STD-1247C colors and symbols.

#### **Recommended Ribbon:**

■ R6000 Series

#### **Series 3 Laminating Tape**

Clear continuous tape used to laminate Series 2 fluid line tapes.

 Meets LMA-MF099 performance requirements

#### Series 2 B-992 Fluid Line Tape

Continuous tape that is 2.5" wide and can fit various diameter tubes and pipes. Comes preprinted with MIL-STD-1247C colors and symbols plus has a blank white right side that allows a user to add a part number, flow direction, torque value, and other information as needed.

#### Series 4 B-992 Fluid Line Tape

Die-cut, self-laminating, 2.5" wide material designed to fit specific diameter pipes and tubes. Has blank, 1.5" wide area on the right portion of the label to fit additional printed information as needed that can be either yellow or white.

- Can be perforated or slit for easy separation of function and printable areas
- Meet Bell 31-099, Boeing Helicopter HS184

#### Series 5 B-992 Fluid Line Tape

Die-cut, self-laminating, 2" wide and is designed to fit specific diameter pipes and tubes. Has a blank, 1" wide area on right portion of label to fit additional printed information as needed.

- Can also be perforated or slit for easy positioning on the surface
- Colors target MIL-STD-1247C specification

# **Subsurface Printed Fluid Line ID Tape: B-999**

The Subsurface Printed Fluid Line Identification Tape (B-999) is available in a continuous rollform or die-cut format. It is a subsurface printed, flexible, transparent polyester film tape with heat activated adhesive. The adhesive has superior resistance to fuels, oils, and hydraulic fluids when compared to typical pressure sensitive adhesives. The B-999 tape's low initial adhesion makes the tape easy to reposition when first applied. B-999 tapes meet Boeing BPS-T-151 and colors target MIL-STD-1247C.

- Type 1 1" wide without a printable zone
- Type 2 3" wide with dot matrix or thermal transfer printable zone
- Available in common color code legends

#### **Recommended Ribbon:**

■ R4300 Series

# Nomex® Cable and Harness Marking Tags: B-508

High performance Nomex® Cable and Wire Harness Marking Tags (B-508) are designed for use in harsh environments by offering excellent tear, solvent and heat resistance. After printing, they are fastened to bundles using zip ties (sold separately).

**Temperature Range:** -70°C (-94°F) to 130°C (266°F)

#### Specifications\*:

#### Tested per:

- SAE-AS-81531
- ASTM E162
- MIL-STD-202, Method 215k
- ASTM E662
- RoHS compliant

#### **Available Colors**

White

Yellow

Nomex® is a registered trademark of Du Pont de Nemours, E.I. and Company.



# Scan for Detailed Technical Information



Enter "B-508", the material number.

# BradyWrap™ Cable Markers: B-330

BradyWrap™ Cable Markers (B-330) are heat shrinkable polyolefin markers for the identification of wire bundles, large conduits, and installed cables after or before termination. Markers can be heat activated using a heat tool or an over (2 minutes at 275° F) to create the most permanent adhesive bond. B-330 can also be used without heat activation; in that case 72-hour dwell is recommended.

**Temperature Range:** -70°C (-94°F) to 110°C (230°F)

#### Specifications\*:

#### Tested per:

- MIL-STD-202, Method 215k
- ASTM B-117
- SAE-AS-81531
- ASTM G155, Cycle 1

#### **Available Colors**

White

#### B-508 and B-330 Printer and Ribbon Compatibility



Standard Black THT: R4300 Series

B-508 and B-330 are also dot matrix printable using Brady R2000 and R5000 Series ribbons.

# Scan for Detailed Technical Information



Enter "B-330", the material number.

<sup>\*</sup> With approved ribbons and surfaces

<sup>\*</sup> With approved ribbons and surfaces

# **DoD Unique Identification Program Solutions**

#### **Print**



Read & Validate

Brady DoD UID Label Sample
(17V) 2D671

(1P) F100200300400AP

(S) ABC333-001



Verify & Grade

As part of the Department of Defense's Unique Identification (DoD UID) program, Item Unique Identification (IUID) is the policy that mandates the managing and tracking of high value assets within the DoD. With deep knowledge of the DoD UID program, Brady makes it easy for you understand what items need unique identification and how to implement an identification process that complies with program requirements.

#### **How does Unique Item Identification Work?**

Items that qualify for the DoD UID program are to be marked with a permanent 2D data matrix code that contains the object's Unique Item Identifier, or UII, and the marking must meet MIL-STD-130. The components that comprise a UII include an enterprise identifier (assigned by a Registered Issuing Agency) and a serial number and/or a party number. Once a UII is created, it is then stored in the IUID registry. IUID has been a mandatory DoD requirement since January 1, 2004.

#### Ultra Aggressive Adhesive Label with Matte Top Coat: B-489

Catalog #	Label Width Inch (mm)	Label Height Inch (mm)	Ribbon / IP Ribbon
THT-59-489-10	1.000 (25.4)	0.500 (12.7)	R4306/IP-R4306
THT-17-489-3	2.000 (50.8)	1.000 (25.4)	R4302/IP-R4302
THT-19-489-1	3.000 (76.2)	2.000 (50.8)	R4300/IP-R4300

#### Ultra Aggressive Adhesive Label with Gloss Top Coat: B-483

Catalog #	Label Width Inch (mm)	Label Height Inch (mm)	Ribbon / IP Ribbon
THT-59-483-10	1.000 (25.4)	0.500 (12.7)	R6006/IP-R6006
THT-17-483-3	2.000 (50.8)	1.000 (25.4)	R6000/IP-R6000
THT-19-483-1	3.000 (76.2)	2.000 (50.8)	R6002/IP-R6002

#### High Temperature Resistant Label, up to 212°F (100°C): B-727

Catalog #	Label Width Inch (mm)	Label Height Inch (mm)	Ribbon / IP Ribbon
THT-13-727-10	1.250 (31.7)	0.250 (6.3)	R6002/IP-R6002
THT-48-727-10	2.000 (50.8)	0.250 (6.3)	R6000/IP-R6000
THT-59-727-10	1.000 (25.4)	0.500 (12.7)	R6006/IP-R6006

#### **Chemical Resistant Labels: B-481**

Label Width Catalog # Inch (mm)		Label Height Inch (mm)	Ribbon / IP Ribbon		
THT-164-481-3	0.900 (22.8)	0.900 (22.8)	R6400/IP-R6400		
THT-194-481-3	0.900 (22.8)	0.375 (9.5)	R6400/IP-R6400		



# **DoD UID Marking Products and Accessories**

Brady offers the products you need to meet the item marking requirements of UID. In accordance with MIL-STD-130, UID identification is to be as permanent as the life of the item being identified. Brady provides products for printing, verifying and grading markings, including onsite training. Brady's scientists develop and rigorously test all materials to ensure they are long-lasting, withstand the harshest environments and peform in the applications of our customers.

#### DoD UID Systems for Printing, Reading & Verifying IUID Labels

	Ultimate Kit		Advanced Kits Standard Kits  Version 1 Version 2		Basic Kit	
		Catalog #110944	Catalog #110945	Catalog #110341	Catalog #110342	Catalog #110946
PR Plus 600 dpi printer		V				
Brady IP™ Printer 600 dpi			V	V		
Brady IP <sup>™</sup> Printer 300 dpi					<b>v</b>	
Code Reader™ 3500 Scanner with & Bluetooth capabilities & charger	10 10 10	V	V			
Code Reader™ 1400 Scanner with 6' cable				V	<b>v</b>	
Microscan LDP Compliance Verifier		~	V			<b>✓</b>
CodeSoft Enterprise Label Design Software	CORSOTT	V	V	V	V	
DoD UID System On-Site Training - 1 Day		~	V	V	~	<b>v</b>



# Expertly **Engineered Materials.** On-Demand **Printing Solutions.** Robust Label Design Software.

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Customer Service: 1-800-262-7777 Inside Sales: 1-800-262-7777 ext 177 www.BradyLatinAmerica.com

