Material Brands & Attributes Guide

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Product Performance Icons

Brady's implementation of a series of attribute icons provides customers with at-a-glance information on performance attributes for each of the label materials. Watch for these icons to help you easily identify product performance features that fit your needs.

Abrasion Resistance
- Resistance proven with testing on Taber Abraser equipment with CS10 grinding wheels and weighted arms. Print is still legible after 100 cycles.

Solvent/Chemical Resistance
- Resistance proven with MEK / Acetone / Toluene / Xylene Immersion Test
- 5 cycles of 10 min immersions followed by rub test with cotton swab. No visible effect or print removal.

Fuel/Oil Resistance
- Resistance proven with Immersion Test in Gasoline, Break Fluid, SAE 30wt Oil, JP-8 Jet Fuel, MIL-H- 5606 Oil.
- 5 cycles of 10 minute immersions followed by rub test with cotton swab. No visible effect or slight print removal.

High Heat Resistance
- Resistance to 212°F (100°C). Labels subjected to a range of temperatures for 30 days or 1000 hours. No visible effect or label still functional.

Low Temperature Resistance
- Labels subjected to -40°C, -70°C or -80°C for 30 days or 1000 hours. No visible effect or label still functional.

Self-Extinguishing Anti-Flammability
- Flammability average burn time = <30 seconds Flame spread index of 0

Ultra-Aggressive Adhesion
- Measures the force required to remove tape from the surface with a 180° peel and a constant rate of 12 inch/min. Meets an adhesion rate of at least 155 oz/in.

Outdoor Durability
- Favorable UV & weatherability testing equating to 3 years or greater outdoor durability.

Removable
- Indicates material can be removed cleanly with no adhesive residue left on surface.

Tamper-Indicating
- Materials indicate tampering through a visible fractured label or footprint.

Electrostatic Dissipative
- Material has surface resistivity values in the recommened range for Dissipative ESD Packaging Materials.

Temperature-Indicating
- Indicates highest temperature exposure

Water-Indicating
- Indicates presence of liquid

View The Technical Data Sheets

Brady offers online access to Technical Data Sheets for all Brady materials. View by a specific B-Number or search by relevant keywords.

Visit **BradyID.com/techdata** for more information.

Wire & Cable ID Materials

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Wire & Cable and Voice & Data Comm Identification Materials

Identify critical components and mark wires and cables for quick identification in your facility or data center.

Brady offers a wide range of identification solutions for marking wires and cables including wire labels, heat-shrinkable sleeves, tags, and more.

Brady's wire and cable identification products are lab and field tested. They are proven to withstand harsh environments including extreme temperatures, liquids, chemical exposure, abrasion and more.

The label markers are extremely durable featuring an ultra resistant top coat formulation and ultra aggressive adhesive.

Brady also offers a wide range of materials to fit voice, data, and video applications. Together with Brady's portable and benchtop printers, label design software, and cable management software, these labels provide identification solutions for cables, closest hardware, racks, panels, workstations and more.

Wire and cable marking solutions are available in a variety of sizes and colors to ensure that your wires and cables are marked with clear, legible identification. With thermal transfer printing systems, label design software and a full line of wire and cable identification, Brady offers the complete solution to meet your needs.

Printer Compatibility

All wire & cable identification parts shown on the following pages are compatible with the following printers unless otherwise noted.

Bradyprinter™ PR Plus Printers

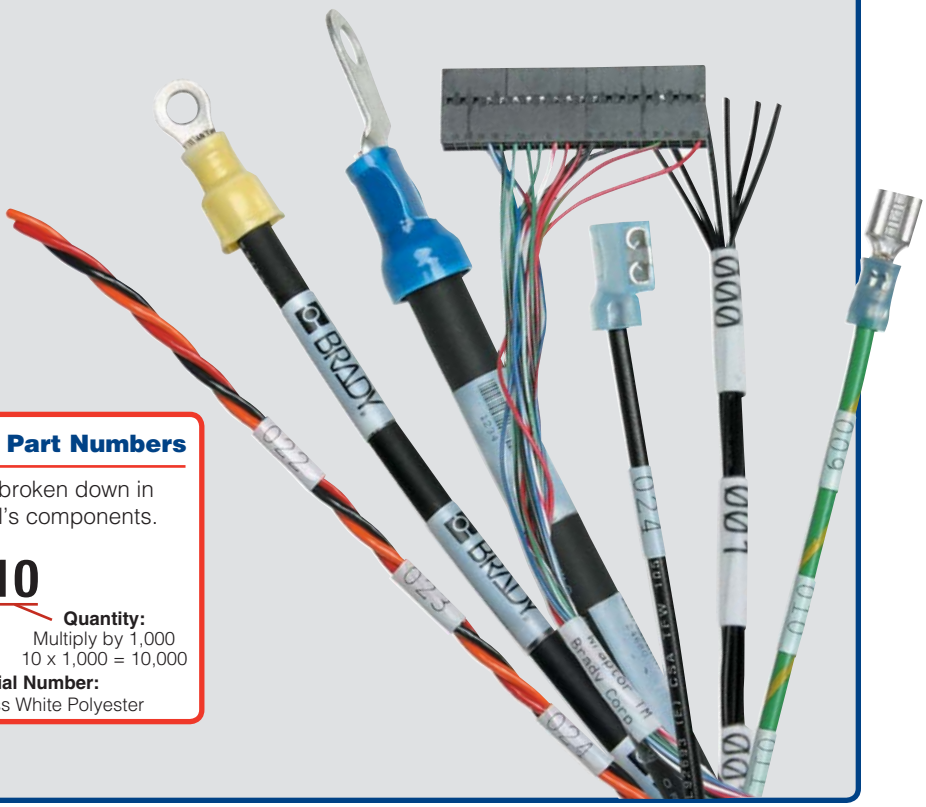
See Page 130

Brady IP™ Printer

See Page 128

BBP®12 Label Printer

3" Core Label Rolls are compatible when used with Media Holder accessory.



Understanding THT Label Part Numbers

Most label part numbers can be broken down in the following manner by the label's components.

Example:

THT-5-423-10

Technology: Thermal Transfer

Die Cut: #5, 1.000" x 0.500"

Material Number: B-423, Gloss White Polyester

Quantity: Multiply by 1,000 10 x 1,000 = 10,000

IP Series, PR Plus & BBP72 Print Ribbons on page 134.
Full Material Properties on page 227.

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B-427 Self-Laminating Rotated Vinyl Material

Color: White/ Transclucent Finish: Matte Printable Zone/ Translucent Wrap

A self-laminating material that is oriented to be one label across and rotated horizontally. These labels also include a white printable area with a clear "tail" that wraps around marker. Tail serves as overlaminate to protect the print. Superior resistance to abrasion, solvents, water, oil and dirt.

Performance Attributes:

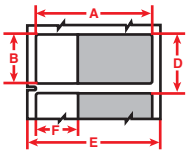

Figure 15

Diagram	Catalog #	Material	Color	Label Width A Inch (mm)	Label Height B Inch (mm)	Vert. Repeat D Inch (mm)	Web Width E Inch (mm)	Write On Area Height F Inch (mm)	Labels Per Row	Labels Per Pkg	Rec. Ribbon
Fig. 15	THT-61-427-5	Vinyl	White/Transparent	1.437 (36.5)	0.500 (12.7)	0.687 (17.5)	1.637 (41.6)	0.500 (12.7)	1	5,000	R4302
Fig. 15	THT-62-427-3.5	Vinyl	White/Transparent	1.750 (44.5)	0.750 (19.1)	0.937 (23.8)	1.950 (49.5)	0.500 (12.7)	1	3,500	R4302
Fig. 15	THT-63-427-3.5	Vinyl	White/Transparent	1.437 (36.5)	0.800 (10.2)	0.987 (25.1)	1.637 (41.6)	0.500 (12.7)	1	3,500	R4302
Fig. 15	THT-64-427-3	Vinyl	White/Transparent	2.250 (57.2)	1.000 (25.4)	1.187 (30.2)	2.450 (62.2)	0.750 (19.1)	1	3,000	R4300
Fig. 15	THT-65-427-3	Vinyl	White/Transparent	3.750 (95.3)	1.000 (25.4)	1.187 (30.2)	3.950 (100.3)	1.000 (25.4)	1	3,000	R4307
Fig. 15	THT-66-427-1.5	Vinyl	White/Transparent	3.187 (81.0)	1.900 (48.3)	2.150 (54.6)	3.387 (86.0)	0.750 (19.1)	1	1,500	R4307
Fig. 15	THT-67-427-1.5	Vinyl	White/Transparent	2.250 (57.2)	2.000 (50.8)	2.187 (55.6)	2.450 (62.2)	0.750 (19.1)	1	1,500	R4300
Fig. 15	THT-85-427-2	Vinyl	White/Transparent	6.000 (152.4)	2.000 (50.8)	2.200 (55.9)	6.200 (157.5)	1.500 (38.1)	1	2,000	R4308
Fig. 15	THT-86-427-2	Vinyl	White/Transparent	7.000 (177.8)	2.000 (50.8)	2.200 (55.9)	7.200 (182.9)	1.500 (38.1)	1	2,000	R4308
Fig. 15	THT-127-427-3	Vinyl	White/Transparent	2.200 (55.9)	0.500 (12.7)	0.625 (15.9)	2.400 (61.0)	0.750 (19.1)	1	3,000	R4300
Fig. 15	THT-131-427-3	Vinyl	White/Transparent	2.625 (66.7)	1.000 (25.4)	1.125 (28.6)	2.825 (71.8)	1.000 (25.4)	1	3,000	R4300
NOTICE BBP®12 PRINTER ONLY: The following part numbers ending with "-SC" are 1" Small Core Rolls for use in the BBP12 Printer only.											
Fig. 15	THT-131-427-1.5-SC	Vinyl	White/Transparent	2.625 (66.7)	1.000 (25.4)	1.125 (28.6)	2.825 (71.8)	1.000 (25.4)	1	1,500	R4313

B-437 Topcoated Polyvinylfluoride Material

Color: White, Yellow Finish: Matte

White or yellow polyvinylfluoride labels with a matte finished used most frequently in wire and cable identification applications where self-extinguishing features are required. This material utilizes a permanent acrylic adhesive for heavy-duty applications and is available in continuous or die-cut formats. Excellent resistance to water, oil and other common fluids.

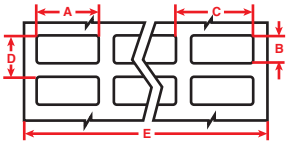

Figure 1

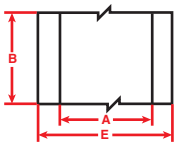

Figure 3

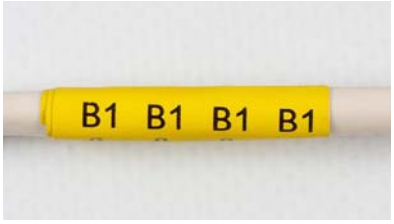

Diagram	Catalog #	Material	Color	Label Width A Inch (mm)	Label Height B Inch (mm)	Horiz. Repeat C Inch (mm)	Vert. Repeat D Inch (mm)	Web Width E Inch (mm)	Labels Per Row	Labels Per Pkg	Rec. Ribbon
Fig 1	THT-14-437-10	Polyvinylfluoride	White	0.650 (16.5)	0.200 (5.1)	0.700 (17.78)	0.300 (7.62)	2.950 (74.93)	4	10,000	R4300
Fig 1	THT-1-437-10	Polyvinylfluoride	White	0.750 (19.1)	0.250 (6.4)	0.800 (20.3)	0.350 (8.89)	3.350 (85.09)	4	10,000	R4300
Fig 1	THT-2-437-10	Polyvinylfluoride	White	0.900 (22.9)	0.250 (6.4)	1.125 (28.6)	0.350 (8.89)	3.350 (85.09)	3	10,000	R4300
Fig 1	THT-29-437-10	Polyvinylfluoride	White	1.250 (31.8)	0.375 (9.5)	1.300 (33.02)	0.475 (12.07)	2.750 (69.85)	2	10,000	R4300
Fig 3	THT-105-437	Polyvinylfluoride	White	1.500 (38.1)	300 ft (91.44 m)	-	-	1.750 (44.45)	1	1 roll cont.	R4302
Fig 1	THT-5-437-10	Polyvinylfluoride	White	1.000 (25.4)	0.500 (12.7)	1.075 (27.31)	0.600 (15.24)	3.350 (85.09)	3	10,000	R4300
Fig 3	THT-21-437	Polyvinylfluoride	White	3.000 (76.2)	300 ft (91.44 m)	-	-	3.200 (81.28)	1	1 roll cont.	R4300
Fig 1	THT-29-437-10-YL	Polyvinylfluoride	Yellow	1.250 (31.8)	0.375 (9.5)	1.300 (33.02)	0.475 (12.07)	2.750 (69.85)	2	10,000	R4300
Fig 3	THT-105-437-YL	Polyvinylfluoride	Yellow	1.500 (38.1)	300 ft (91.44 m)	-	-	1.750 (44.45)	1	1 roll cont.	R4302
Fig 1	THT-5-437-10-YL	Polyvinylfluoride	Yellow	1.000 (25.4)	0.500 (12.7)	1.075 (27.31)	0.600 (15.24)	3.350 (85.09)	3	10,000	R4300
Fig 3	THT-21-437-YL	Polyvinylfluoride	Yellow	3.000 (76.2)	300 ft (91.44 m)	-	-	3.200 (81.28)	1	1 roll cont.	R4300
NOTICE BBP®12 PRINTER ONLY: The following part numbers ending with "-SC" are 1" Small Core Rolls for use in the BBP12 Printer only.											
Fig 3	THT-105-437-SC	Polyvinylfluoride	White	1.500 (38.1)	300 ft (91.44 m)	-	-	1.750 (44.45)	1	1 roll cont.	R4313
Fig 3	THT-21-437-SC	Polyvinylfluoride	White	3.000 (76.2)	300 ft (91.44 m)	-	-	3.200 (81.28)	1	1 roll cont.	R4300
Fig 3	THT-105-437-YL-SC	Polyvinylfluoride	Yellow	1.500 (38.1)	300 ft (91.44 m)	-	-	1.750 (44.45)	1	1 roll cont.	R4313
Fig 3	THT-21-437-YL-SC	Polyvinylfluoride	Yellow	3.000 (76.2)	300 ft (91.44 m)	-	-	3.200 (81.28)	1	1 roll cont.	R4313

IP Series, PR Plus & BBP72 Print Ribbons on page 134.
Full Material Properties on page 227.

Master Material Index

RoHS	RoHS compliant material
UL	UL approved material*
cUL	Materials evaluated to Canadian safety requirements
CSA	CSA approved materials*
	Materials have static dissipative adhesives

Refer to page 235 for more information and complete listing of approved materials.

Master Material Index (Continued)

Continued from previous page.

B-Number	Material	Finish	Color	Temperature Range	Performance Attributes	Properties & Applications	
B-412	Tag Material	Matte	White	-40°F to 212°F (-40°C to 100°C)		Highly durable labels designed for thermal transfer printing in outdoor and harsh environmental applications. Ideal for wire and cable identification or product inventory identification, where legibility and tensile strength are needed.	RoHS
B-413	Polyester	Metallic	Silver	-94°F to 248°F (-70°C to 120°C)		Excellent PCB and component identification. Non-metallized metallic looking label.	UL, cUL, RoHS
B-422	Polyester	Gloss	White	-40°F to 212°F (-40°C to 100°C)		Gloss white film with permanent acrylic-based adhesive. Designed for rough surfaces and applications where increased adhesion is required. Electronic PCB and component; bar code label and rating plates. 2 mil adhesive, recommended for application on textured surfaces.	UL, CSA, RoHS
B-423	Polyester	Gloss	White	-94°F to 248°F (-70°C to 120°C)		Thermal transfer-printable with a permanent acrylic adhesive. Electronic PCB and component; barcode label and rating plates.	UL, CSA, RoHS
B-424	Paper	Matte	White	-40°F to 122°F (-40°C to 50°C)		Top-coated, thermal transfer-printable with a permanent latex adhesive. Designed for use in labeling applications requiring a low-cost, general-purpose labeling material.	RoHS
B-425	Polypropylene	Matte	White	-94°F to 212°F (-70°C to 100°C)		Excellent solvent resistance and print performance.	UL, cUL, CSA, RoHS
B-426	Polyimide	Matte	Amber	-94°F to 518°F (-70°C to 270°C) 5 min at 536°F (280°C) 80 sec at 626°F (350°C)		Polyimide film with a permanent acrylic adhesive, designed to withstand the various processes, fluxes and cleaning solvents encountered in the manufacture of printed circuit boards. Can be used for top- or bottom-side component or board identification. Withstands extremely high temperatures.	RoHS
B-427†	Vinyl	Matte	Clear/White	-40°F to 158°F (-40°C to 70°C)		Permanent acrylic adhesive and a topcoat specifically formulated for thermal transfer printing. Excellent water, oil and solvent resistance with clarity and conformability. Self-laminating wire and cable identification.	UL, RoHS
B-428	Metallized Polyester	Matte	Silver	-40°F to 293°F (-40°C to 145°C)		Metallized polyester with a permanent acrylic adhesive. Thermal transfer printable. Designed for rating or serial plates, product information, warranty labels and inventory control labels.	UL, CSA, RoHS
B-430	Polyester	Gloss	Clear	-40°F to 212°F (-40°C to 100°C)		Thermal transfer-printable polyester with permanent acrylic-based adhesive. Designed for rating and serial plates using alphanumerics, bar codes, graphic symbols, and logos that require name plate quality. Withstands numerous solvents and can be applied to variable surfaces	UL, CSA, RoHS
B-432	Polyester	Gloss	Clear	-40°F to 212°F (-40°C to 100°C)		Gloss clear thermal transfer-printable film with permanent acrylic-based adhesive. Designed for rough surfaces and applications where increased adhesion is required. 2 mil adhesive recommended for application on textured surfaces. UL recognized/CSA approved for rating plate applications.	UL, CSA, RoHS
B-434	Metallized Polyester	Gloss	Silver	-40°F to 194°F (-40°C to 90°C)		Glossy metallized polyester with permanent acrylic-based adhesive. Designed for rough surfaces and applications where increased adhesion is required. 2 mil adhesive recommended for application on textured surfaces. UL recognized/CSA approved for rating plate applications.	UL, CSA, RoHS
B-435	Metallized Polyester	Gloss	Silver	-40°F to 194°F (-40°C to 90°C)		High-performance material designed for thermal transfer printing. Withstands numerous solvents while maintaining excellent image quality. Ideal for rating plate applications and general purpose labeling.	UL, CSA, RoHS
B-436	Polyimide	Matte	Amber	-40°F to 293°F (-40°C to 145°C) 2 hrs at 500°F (260°C) 5 mins at 518°F (270°C)		Polyimide film with a removable silicone pressure sensitive adhesive designed to remove completely after high-temperature exposure. Can be used for top- or bottom-side component or board identification. Withstands extremely high temperatures.	RoHS