Thermal Transfer Labels

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UL	*These materials are UL approved.
cUL	These materials have been evaluated to Canadian safety requirements.
CSA	*These materials are CSA approved.
	These materials have static dissipative adhesives.

*Refer to the full page charts on pages 110–112 for more information and complete listing of parts.

Thermal Transfer Materials Chart

Brady Material Number	Finish	Color	Temperature Range	Properties & Applications	
Acetate					
B-358	Gloss	Clear	-94°F to 176°F (-70°C to 80°C) 5 min at 302°F (150°C)	Tamper resistant film with a permanent acrylic adhesive. Designed to fracture easily when removal is attempted. For use as package seals/closures.	RoHS
Nylon Cloth					
B-499	Matte	White	-40°F to 193°F (-40°C to 90°C) 5 mins at 293°F (145°C)	Wire and electronic component marking. Permanent adhesive. High adhesion makes all purpose wire marking ideal for environments where heat, cold, oil and dirt are present. Also ideal for laboratory vial identification. Not intended for outdoor use.	UL CSA RoHS
Paper					
B-402	Matte	White	-94°F to 158°F (-70°C to 70°C)	Thermal transfer-printable paper with permanent adhesive. Applications in general labeling and bar code labeling. Aggressive adhesive for bonding to corrugated, films, plastic and steel surfaces.	RoHS
B-408	Matte	White	25°F to 158°F (4°C to 70°C)	Bar code and general labeling. Repositionable adhesive.	RoHS
B-424	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
Polyester					
B-413	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	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	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-430	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	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-433	Gloss	White	-40°F to 212°F (-40°C to 100°C)	Designed for electronic component marking and general purpose applications requiring good solvent, heat resistance and a label that can be easily removed. Removable acrylic-based adhesive.	UL RoHS
B-459	Matte	White	-40°F to 212°F (-40°C to 100°C)	A permanent acrylic-based adhesive. Designed for electronic component marking and general purpose applications requiring good solvent and heat resistance.	UL CSA RoHS
B-461	Matte	Clear	-320°F to 230°F (-196°C to 110°C)	Clear film that can be offered with matte white printable zone in a self-laminating format. Provides excellent print smudge resistance and solvent resistance. Performs well in common laboratory environments such as liquid nitrogen, autoclave, freezer and hot water bath applications when laminated around itself.	RoHS
B-464	Gloss	Silver	-40°F to 176°F (-40°C to 80°C)	Retro-reflective polyester with permanent acrylic-based adhesive. Designed for long range bar code scanning in warehouse/bin locator applications. Recommended for indoor use only.	
B-473	Gloss	White	-40°F to 248°F (-40°C to120°C) 5 min at 354°F (180°C)	Static dissipative acrylic adhesive and static dissipative release liner. Ideal for bar code, printed circuit board and component identification.	UL CSA RoHS
B-480	Metallic	Silver	-94°F to 248°F (-70°C to 120°C)	Bar code labels, serial and rating plates requiring nameplate like quality. Adhesive designed for low surface energy or powder coated surfaces.	UL cUL RoHS
B-481	Matte	White	-112°F to 266°F (-80°C to 130°C)	Top coat and adhesive are formulated to withstand most laboratory staining processes.	RoHS
B-483	Gloss	White	-40°F to 248°F (-40°C to 120°C)	General purpose labeling. Highest adhesion product for thermal transfer printing, designed for powder coated surfaces.	UL CSA RoHS
B-484	Gloss	White	-40°F to 248°F (-40°C to 120°C)	1 mil white polyester with a permanent, ultra-agressive adhesive. Designed for powder-coated surfaces and curved/angled surfaces.	UL RoHS
B-488	Matte	White	-40°F to 320°F (-40°C to 160°C)	High performance material ideal for bar code labels or rating plates.	CSA RoHS
B-489	Matte	White	-40°F to 248°F (-40°C to 120°C)	Matte polyester with ultra aggressive, permanent adhesive. Designed for high adhesion to textured metals, low surface energy plastics, or powder coated surfaces.	UL CSA RoHS
B-490	Matte	White	-320°F to 266°F (-196°C to 130°C)	This material offers the unique ability to apply identification to a frost covered/cryogenically frozen surface.	RoHS

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Thermal Transfer Materials Chart (Continued)

Brady Material Number	Finish	Color	Temperature Range	Properties & Applications	
Polyester (Continued)					
B-492	Matte	White	-320°F to 266°F (-196°C to 130°C)	Ideal for identification of frozen surfaces including glass and propolyene stored in liquid nitrogen.	RoHS
B-7546	Gloss	White	-40°F to 175°F (-40°C to 80°C)	Tamper evident; leaves "void" footprint when removed.	UL CSA RoHS
B-7566	Gloss	Clear	-94°F to 176°F (-40°C to 80°C)	Tamper Evident; leaves "void" footprint when removed.	RoHS
B-8423	Satin	White	-94°F to 248°F (-70°C to 120°C)	Thermal Transfer with a permanent acrylic adhesive. Semi-gloss finish excellent for bar code labels.	UL CSA RoHS
Metallized Polyester					
B-428	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-434	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	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-438	Matte	Silver	-40°F to 104°F (-40°C to 40°C)	Matte metallized polyester with a permanent adhesive. Designed for rating and serial plates requiring both high-performance and protection against removal. Designed to leave a checkerboard footprint if removed.	UL CSA RoHS
B-486	Matte	Silver	-40°F to 248°F (-40°C to 120°C)	Matte metallized polyester with a permanent, ultra aggressive adhesive. Designed for applications like rating and serial plates that require high adhesion to textured metals, low surface energy plastics, or powder coated surfaces.	UL CSA RoHS
B-7576	Matte	Silver	-94°F to 212°F (-70°C to 100°C)	Tamper evident; leaves "void" footprint when removed.	UL RoHS
Polyester/Paper					
B-350	Gloss	White	-94°F to 194°F (-70°C to 90°C)	Provides clear evidence of exposure to water for controlling invalid warranty claims, failure analysis or troubleshooting (service and repair).	UL RoHS
Polyimide					
B-426	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-436	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
B-457	Gloss	White	-94°F to 212°F (-70°C to 100°C) 2 hrs at 338°F (170°C) 5 min at 500°F (260°C) 80 sec at 572°F (300°C) Label discolors at 662°F (350°C) but is still functional	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. Glossy topcoat provides excellent contrast and smear resistance.	UL RoHS
B-476	Gloss	Light Green	-94°F to 212°F (-70°C to 100°C) 2 hrs at 212°F (100°C) 5 min at 500°F (260°C) 80 secs at 572°F (300°C)	Light green polyimide material that can be used for visual differentiation between Lead (Pb) Free manufacturing and non-Lead (Pb) Free manufacturing. High temperature and solvent resistance for printed circuit board and component preprocess labeling.	UL RoHS
B-477	Gloss	White	-94°F to 212°F (-70°C to 100°C) 2 hrs at 338°F (170°C) 5 min at 500°F (250°C) 80 sec at 572°F (300°C) Label discolors at 662°F (350°C) but is still functional	Polyimide film with a permanent acrylic static dissipative adhesive and static dissipative release liner, 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. Glossy topcoat provides excellent contrast and smear resistance.	UL RoHS

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Thermal Transfer Materials Chart (Continued)

Brady Material Number	Finish	Color	Temperature Range	Properties & Applications	
Polyimide (Continued)					
B-478	Gloss	White	-94°F to 212°F (-70°C to 100°C) 2 hrs at 338°F (170°C) 5 mins at 500°F (250°C) 80 sec at 572°F (300°C) Label discolors at 662°F (350°C) but is still functional	1-mil low profile polyimide film with a permanent static dissipative adhesive and static dissipative release liner; designed to withstand the various processes, fluxes and cleaning solvents encountered in the manufacture of printed circuit boards. Glossy topcoat provides excellent contrast and smear resistance. Can be used for top- or bottom-side component or board identification.	UL RoHS
B-479	Matte	White	-94°F to 212°F (-70°C to 100°C) 2 hrs at 338°F (170°C) 5 mins at 500°F (250°C) 80 sec at 572°F (300°C) Label discolors at 662°F (350°C) but is still functional	1-mil low profile polyimide film with a permanent static dissipative adhesive and static dissipative release liner; designed to withstand the various processes, fluxes and cleaning solvents encountered in the manufacture of printed circuit boards. Matte topcoat provides excellent resistance to solder balling. Can be used for top- or bottom-side component or board identification.	UL RoHS
B-487	Matte	White	-94°F to 212°F (-70°C to 100°C) 2 hrs at 338°F (170°C) 5 mins at 500°F (250°C) 80 sec at 572°F (300°C) Label discolors at 662°F (350°C) but is still functional	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. Matte topcoat provides excellent resistance to solder balling. Can be used for top- or bottom-side component or board identification.	UL RoHS
B-497	Matte	White	-94°F to 212°F (-70°C to 100°C) 2 hrs at 338°F (170°C) 5 mins at 500°F (250°C) 80 secs at 572°F (300°C) Label discolors at 662°F (350°C) but is still functional	1-mil low profile 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. Matte topcoat provides excellent resistance to solder balling. Can be used for top- or bottom-side component or board identification.	UL RoHS
Polyolefin					
B-330	Matte	White or Yellow	-94°F to 230°F (-70°C to 110°C) 24 hrs at 248°F (120°C)	Heat-shrinkable polyolefin film with a heat-activating adhesive. Can also be used without heat activation. A 72 hour dwell is recommended when product is not heat activated. To be used for identification of wire bundles, large conduits, and installed cables.	
B-407	Matte	Translucent	-94°F to 194°F (-70°C to 90°C)	General purpose label for applications that require thermal transfer printable materials. Recommended for outdoor use.	RoHS
B-449	Matte	White	-94°F to 194°F (-70°C to 90°C)	Designed for use in temporary labeling applications requiring solvent resistance and print performance coupled with clean removability.	RoHS
Polypropylene					
B-367	Gloss	Custom	-94°F to 194°F (-70°C to 90°C)	Leaves a customized footprint pattern (i.e. logos, special warnings, instructions) when label is removed, and pattern will appear on the top surface of the label in order to prevent it from being reused.	UL RoHS
B-390	Matte	White	-40°F to 212°F (-40°C to 100°C)	Wire marking carrier inserts that are designed to be printed and affixed to a wire using extruded, clear PVC Wire Marking Carriers.	RoHS
B-425	Matte	White	-94°F to 212°F (-70°C to 100°C)	Excellent solvent resistance and print performance.	UL cUL CSA RoHS
B-8425	Gloss	White	-94°F to 194°F (-70°C to 90°C)	General purpose labeling, asset identification and warning/instructional labeling.	UL CSA RoHS
Raised Panel					
B-593	Gloss	White, Black Yellow, Red, Green, Metallized	-4°F to 212°F (-20°C to 100°C)	Adhesive taped polyester designed for patch panel identification in identifying external push buttons, switches, and internal connection points. Also used as rating and serial plates.	UL cUL RoHS

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Thermal Transfer Materials Chart (Continued)

Brady Material Number	Finish	Color	Temperature Range	Properties & Applications	
Sleeve Materials					
B-341†	Matte	White, Yellow Black, Red, Blue, Green, Orange, Gray, Pink, Violet, Brown	-40°F to 267°F (-40°C to 130°C) 24 hrs at 350°F (180°C) 5 min at 500°F (260°C)	Heat-shrinkable sleeve with a 2:1 shrink ratio for wire and cable identification. Meets the material and physical property requirements of SAE AMS-DTL-23053/5C (class 1) for Insulation Sleeving and SAE AS-81531 for Marking of Electrical Insulating Materials, and MIL-STD-202.	RoHS
B-342†	Matte	White, Yellow Black, Red, Blue, Green, Orange, Gray, Pink, Violet, Brown	-40°F to 267°F (-40°C to 130°C) 24 hrs at 350°F (180°C) 5 min at 500°F (260°C)	Heat-shrinkable sleeve with a 3:1 shrink ratio for wire and cable identification. Meets the material and physical property requirements of SAE AMS-DTL-23053/5C (class 1) for Insulation Sleeving and SAE AS-81531 for Marking of Electrical Insulating Materials, and MIL-STD-202.	RoHS
B-7641	Matte	White, Yellow Various Other Colors	-22°F to 221°F (-30°C to 105°C)	Heat-shrinkable (2:1), low halogen polyolefin wire and cable marking sleeves. The tubing contains no added halogens and offers excellent fire safety characteristics combined with minimal smoke emission.	RoHS
B-7642	Matte	White, Yellow	-40°F to 248°F (-40°C to 120°C) 24 hrs at 320°F (160°C) 5 mins at 464°F (240°C)	Heat-shrinkable polyolefin sleeve, with a 2:1 shrink ratio for wire and cable marking.	RoHS
Tag Material					
B-109†	Matte	White	-40°F to 120°F (-40°C to 49°C)	General-purpose tagging material with excellent tear- and chemical- resistance. Exhibits good weatherability, humidity resistance, and legibility after solvent exposure.	RoHS
B-411	Matte	White	-40°F to 122°F (-40°C to 50°C)	Designed printing in harsh environments. Resistant to water and chemicals. Not recommended for outdoor applications. Tag material designed for general purpose marking.	RoHS
B-412	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-508	Matte	White, Yellow Green	-94°F to 302°F (-70°C to 150°C)	High performance wire bundle and cable identification tag for use in harsh environments. Excellent tear, solvent, and heat resistance properties.	RoHS
B-7643	Matte	White, Yellow	-40°F to 193°F (-40°C to 90°C)	Zero-halogen, high density thermoplastic polyether polyurethane cable marker. The markers are tough, with a very high degree of mark permanence in almost any environment.	RoHS
Tedlar®					
B-437	Matte	White, Yellow Various other colors	-94°F to 275°F (-70°C to 135°C)	Polyvinylfluoride film with a permanent acrylic adhesive. Designed for cable and wire bundle identification, aerospace and military cable marking and applications where self-extinguishing properties are required.	RoHS
Vinyl					
B-351	Matte	White	-40°F to 212°F (-40°C to 100°C)	Tamper-resistant film with a permanent acrylic adhesive. Good resistance to solvents and humidity. Designed to fracture easily to prevent one-piece removal.	UL RoHS
B-427†	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-439†	Matte	Silver, Gold, Red, Purple, Yellow, Orange, Green, Black, Light Blue, White	-94°F to 104°F (-90°C to 40°C)	Designed for use with thermal transfer printers in ambient conditions with limited solvent exposure. Ideal for applications requiring various colors - such as rating plates or finished product and general purpose identification.	RoHS
Vinyl Cloth					
B-498	Semi-Gloss	White, Yellow Orange	-40°F to 175°F (-40°C to 80°C)	Wire, cable and component marking. Repositionable, removes cleanly. Suitable for general identification.	UL CSA RoHS
Metallized Vinyl					
B-352	Matte	Silver	-40°F to 176°F (-40°C to 80°C)	Tamper-resistant metallized film. Good resistance to solvents and humidity. Designed to fracture easily to prevent one-piece removal.	UL RoHS

** The following items, as of June 22, 2009 are RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC. Product compliance is based upon information provided by suppliers of the raw materials used by Brady to manufacture these products or based on results of testing using recognized analytical methods performed by a third party, independent laboratory. As such, Brady makes no independent representations, or warranties, expressed or implied, and assumes no liability in connection with the use of this information. Labels must be printed with the proper RoHS compatible ribbon to meet RoHS specifications. For specific testing data, please contact Brady.

† The following materials have been reformulated to be RoHS compliant, as of June 22, 2009. Inventories of non-compliant material may still exist. Please contact Brady should you have any questions regarding RoHS compliance for a specific order of any of the following Brady material numbers.