WHEN PERFORMANCE MATTERS MOST™

Technical Data Sheet

BRADY B-797 THERMAL TRANSFER PRINTABLE GLOSSY WHITE POLYIMIDE LABEL STOCK

TDS No. B-797
Effective Date: 2/27/2026

Description:

GENERAL

Print Technology: Thermal transfer
Material Type: Polyimide
Finish: Glossy
Adhesive: Permanent Acrylic

APPLICATIONS

Printed circuit board (PCB) and electronic component pre-process labeling.

RECOMMENDED RIBBONS

Brady Series R4900A
Brady Series R6000 Halogen Free
Brady Series R6300
Brady Series R8965
Brady Series RR103

REGULATORY/AGENCY APPROVAL

UL: Brady B-797 is a UL Recognized Component to UL969 Labeling and Marking Standard when printed with the Brady Series R6300 and Brady Series R6000 Halogen Free ribbons. See UL file MH17154 for specific details. UL information can be accessed on-line at UL.com in the UL Product iQ area.

For information on the Weee-RoHS compliance status for a Brady Product go to one of the following websites:
In Canada: www.bradycanada.ca/weee-rohs
In Europe: www.bradyeurope.com/rohs
In Japan: www.brady.co.jp/products/labelsuse/rohs
All other regions: www.bradyid.com/weee-rohs

SPECIAL FEATURES

B-797, in combination with the Brady Series R6300 or R6000 Halogen Free ribbon, meets the requirements of MIL-STD-202G, Method 215K.

B-797 is designed to withstand multiple cycles of harsh condition washes for printed circuit boards.

The R4900A, R6300 and R8965 ribbons are recommended for use in non reflow applications for aqueous cleaning.

B-797 is suitable for use in a variety of PCB manufacturing processes. For through hole technology processes, if the label is applied to the bottom side of the PCB and is exposed to physical contact (e.g., wave solder), especially above 260°C, we recommend testing in your specific process to ensure the label meets performance expectations.

Details:

PHYSICAL PROPERTIES	TEST METHODS	TYPICAL RESULTS
Thickness	ASTM D1000 -Substrate (topcoat and film) -Adhesive -Total (excluding liner)	 0.0024 inch (0.061 mm) 0.0017 inch (0.043 mm) 0.0041 inch (0.104 mm)
Adhesion to: -Stainless Steel	ASTM D1000 20 minute dwell 24 hour dwell	 46 oz/in (50 N/100 mm) 57 oz/in (62 N/100 mm)

-Epoxy PC Board	20 minute dwell 24 hour dwell	36 oz/in (39 N/100 mm) 49 oz/in (54 N/100 mm)
Tack	ASTM D2979 Polyken™ Probe Tack 0.5 second dwell	67 oz (1900 g)
Drop Shear	PSTC-7 (1/2" x 1" sample)	>100 hours
Dielectric Strength	ASTM D1000	10,000 volts

Performance properties were tested on B-797 printed with the Brady Series R6300 ribbon. Printed samples were laminated to aluminum and allowed to dwell 24 hours before exposure to the indicated conditions. High-temperature performance is evaluated in a controlled laboratory using forced-air ovens.

Actual performance in customer applications may vary due to differences in environment, surface types, chemistries, conditions, and any physical contact with the label during processing.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Short Term High Service Temperature	80 seconds at various Temperatures	No visible effect to label at 572° F (300°C) and 626°F (330°C), label discolors slightly but still functional, at 662°F (350°C). Print is still legible.
	5 minutes at various Temperatures	No visible effect to label at 500°F (260°C), label discolors slightly at 536°F (280°C), moderately discolors at 572°F (300°C) but remains functional. Print is still legible.
	2 hours at various Temperatures	No visible effect to label at 338°F (170°C) and 392°F (200°C). Label discolors slightly at 446°F (230°C), moderately at 500°F (260°C), but remains functional. Print is still legible.
Long Term High Service Temperature	1000 hours at various Temperatures	Label discolors slightly at 248°F (120°C), and discolors moderately at 293°F (145°C), but remains functional. Print is still legible.
Low Service Temperature	1000 hours at -112°F (-80°C)	No visible effect
Humidity Resistance	1000 hours at 95°C (37°C)/95%RH	No visible effect
UV Light Resistance	ASTM G155, cycle 1, Dry 1000 hours in Q-Sun Xenon Test Chamber	No visible effect
Weatherability*	ASTM G155, Cycle 1 1000 hours in Xenon arc Weather-Ometer®	No visible effect
Salt Fog Resistance	ASTM B117 1000 hours in 5% salt fog solution chamber	No visible effect
Abrasion Resistance	Taber Abraser, CS-10 grinding wheels, 250 g/arm (Fed. Std. 191A, Method 5306)	Print legible up to 50 cycles with the R6300 Ribbon Print legible up to 100 cycles with the R6000 Halogen Free Ribbon

Chemical Vapor Phase Resistance	Labels adhered to epoxy PC board and exposed to the vapor of the boiling chemical for 10 minutes and then rubbed with a cotton swab saturated with the chemical for 10 rubs Test samples were baked 4 minutes at 160°C prior to testing Micronox® MX2501	Severe print removal

*B-797 is not recommended for outdoor use.

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE

Test samples were printed with the Brady Series R6300 and R6000 Halogen Free ribbons. Labels were adhered to an epoxy PC board. Test samples were exposed to the indicated environments. All test samples were immersed in the test fluids for 10 minutes prior to rubbing with a cotton swab ten times. Note: Samples were tested without exposure to reflow conditions.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE				
	EFFECT TO LABEL	R6300		R6000 Halogen Free	
		WITHOUT RUB	WITH RUB	WITHOUT RUB	WITH RUB
Kyzen Corp, 15% Aquanox® A4625 at 140°F (60°C)	No visible effect	1	1	1	5
Kyzen Corp, 7% Aquanox® A4382 at at 150°F (65°C)	No visible effect	1	1	1	5
Kyzen Corp, 10% Aquanox® A4638 at 145°F (63°C)	No visible effect	1	1	1	1
Zestron, 15% Atron® AC205 at 150°F (65°C)	No visible effect	1	1	3	5
Zestron, 15% Atron® AC207 at 150°F (65°C)	No visible effect	1	1	5	5
Zestron, 15% Vigon® A201 at 150°F (65°C)	No visible effect	1	2	1	5
Zestron, 15% Vigon® N600 at 150°F (65°C)	No visible effect	1	1	1	5
Isopropyl Alcohol 99% at 180°F (82°C)	No visible effect	1	1	1	2
Deionized water at 212°F (100°C)	No visible effect	1	1	1	1

Rating Scale:
1=no visible effect
2=slight smear or print removal, detectable but minimal smear
3=moderate smear or print removal (print still legible)
4=severe smear or print removal (print illegible or just barely legible)
5=complete print removal

PERFORMANCE PROPERTY	TEST METHOD
Solvent Resistance	**MIL-STD-202G, Method 215K**

Test samples were printed with the Brady Series R6300 and R6000 Halogen Free ribbons. Labels were printed with alphanumerics and barcodes. Test samples were subjected to 3 cycles of 3 minute immersions immediately followed by a toothbrush rub after each immersion.

TEST FLUID	RESULTS R6300	RESULTS R6000 Halogen Free
Solvent A 1 part IPA, 3 parts mineral spirits	Meets requirement	Meets requirement
Solvent C Terpene Defluxer	Meets requirement	Meets requirement
Solvent D Saponifier @ 70°C	Meets requirement	Meets requirement

Performance: It remains the responsibility of the user to assess the risk of using this product. We recommend customers develop test protocols to validate the product's fitness for use in their actual application.

Shelf Life: Shelf life is two years from the date of receipt for this product as long as this product is stored in its original packaging in an environment below 80°F (27°C) and 60% RH.

Trademarks:
ANSI: American National Standards Institute (U.S.A.)
ASTM: American Society for Testing and Materials (U.S.A.)
All S.I. Units (metric) are mathematically derived from the U.S. Conventional Units
Aquanox® is a registered trademark of the Kyzen Corporation
Atron® is a registered trademark of the Zestron Corporation
Micronox® is a registered trademark of the Kyzen Corporation
PSTC: Pressure Sensitive Tape Council (U.S.A.)
Polyken™ is a trademark of Testing Machines Inc.
UL: Underwriters Laboratories Inc. (U.S.A.)
Vigon® is the registered trademark of Zestron Corporation
Weather-Ometer® is a registered trademark of Atlas Material Testing Technology LLC

Note: All values shown are averages and should not be used for specification purposes.
Test data and test results contained in this document are for general information only and shall not be relied upon by Brady customers for designs and specifications, or be relied on as meeting specified performance criteria. Customers desiring to develop specifications or performance criteria for specific product applications should contact Brady for further information.

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