

BRADY B-7797 AUTO-DISPENSABLE GLOSSY WHITE THERMAL TRANSFER PRINTABLE POLYIMIDE LABEL STOCK

TDS No. B-7797
 Effective Date: 10/08/2022

Description:

GENERAL

Print Technology: Thermal transfer

Material Type: White polyimide

Finish: Gloss

Adhesive: Permanent acrylic

APPLICATIONS

Printed circuit board and electronic component preprocess labeling, especially with auto-dispensing requirements.

RECOMMENDED RIBBONS

Brady Series R6300 Halogen Free

REGULATORY/AGENCY APPROVALS

Brady B-7797 is UL Recognized to UL969 Labeling and Marking Standard when printed with the Brady Series R6000 Halogen Free ribbon. See UL file MH17388 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

The B-7797 is designed for auto-dispense applications.

B-7797, in combination with the Series R6300 ribbon, meets the requirements of MIL-STD-202G, Method 215K.

B-7797 is designed to withstand multiple cycles of harsh condition washes for printed circuit boards.

Details:

PHYSICAL PROPERTIES	TEST METHODS	TYPICAL RESULTS
Thickness	ASTM D1000 -Substrate (topcoat and film) -Adhesive -Total (excluding liner)	0.0027 inch (0.068 mm) 0.0013 inch (0.033 mm) 0.0040 inch (0.101 mm)
Adhesion to: -Stainless Steel -Epoxy PC Board	ASTM D1000 20 minute dwell 24 hour dwell 20 minute dwell 24 hour dwell	45 oz/in /32 oz/in (49 N/100 mm) 56 oz/in 00 oz/in (61 N/100 mm) 35 oz/in 00 oz/in (38 N/100 mm) 48 oz/in 00 oz/in (52 N/100 mm)
Tack	ASTM D2979 Polyken™ Probe Tack 0.5 second dwell	42 oz(1200 g) / 40 oz (1125 g)
Drop Shear	PSTC-7 (1/2" x 1" sample)	> 100 hours
Dielectric Strength	ASTM D1000	10,000 volts/12,000 volts

Performance properties tested on B-7797 printed with the Brady Series R6300 thermal transfer ribbon. Printed samples of B-7797 were laminated to aluminum and allowed to dwell 24 hours before exposure to the indicated environmental conditions.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Short Term High Service Temperature	80 seconds at various temperatures	Label discolors slightly at 300°C and 330°C, and discolors moderately at 350°C, but remains functional.
	5 minutes at various temperatures	No visible effect to label at 260°C, label discolors slightly at 280°C, moderately at 300°C, but remains functional.
	2 hours at various temperatures	No visible effect to label at 170°C and 200°C. Label discolors slightly at 230°C, moderately at 260°C, but remains functional.
Long Term High Service Temperature	1000 hours at various temperatures	Label discolors slightly at 120°C, and discolors moderately at 145°C, but remains functional
Low Service Temperature	1000 hours at -112°F (-80°C)	No visible effect
Humidity Resistance	1000 hours at 100°F (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
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-7797 is not recommended for outdoor use.

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
----------------------	---------------------

Test samples were printed with the Brady Series R6300 ribbon. Labels were adhered to 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 rub with cotton swab ten times. Note: Samples were tested without exposure to reflow conditions.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	EFFECT TO LABEL	R6300	
		WITHOUT RUB	WITH RUB
Kyzen Corp, 15% Aquanox® A4625 at 140°F (60°C)	No visible effect	1	1
Kyzen Corp, 7% Aquanox® A4382 at 150°F (65°C)	No visible effect	1	1
Kyzen Corp, 10% Aquanox® A4638 at 145°F	No visible effect	1	1

(63°C)			
Zestron, 15% Atron® AC205 at 150°F (65°C)	No visible effect	1	1
Zestron, 15% Atron® AC207 at 150°F (65°C)	No visible effect	1	1
Zestron, 15% Vigon® A201 at 150°F (65°C)	No visible effect	1	2
Zestron, 15% Vigon® N600 at 150°F (65°C)	No visible effect	1	1
Isopropyl Alcohol 99% at 180°F (82°C)	No visible effect	Pending	Pending
Deionized water at 212°F (100°C)	No visible effect	Pending	Pending

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 Series R6300 thermal transfer ribbon. 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
Solvent A 1 part IPA, 3 parts mineral spirits	Meets requirement
Solvent C Terpene Defluxer	Meets requirement
Solvent D Saponifier @ 70°C	Meets requirement

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. It remains the responsibility of the user to assess the risk of using this product. We encourage customers to develop testing protocols that will qualify a product's fitness for use in their actual applications.

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 SSA™ is a trademark of Kyzen Corporation.
- Atron® is a registered trademark of the Zestron Corporation
- Ionox® is a registered trademark of the Kyzen 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.

Product compliance information is based upon information provided by suppliers of the raw materials used by Brady to manufacture this product 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, express or implied, and assumes no liability in connection with the use of this information.

WARRANTY

Brady products are sold with the understanding that the buyers will test them in actual use and determine for themselves their adaptability to their intended uses. Brady warrants to the buyers that its products are free from defects in material and workmanship, but limits its obligation under this warranty to replacement of the product shown to Brady's satisfaction to have been defective at the time Brady sold it. This warranty does not extend to any persons obtaining the product from the buyers. This warranty is in lieu of any other warranty, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose, and of any other obligations or liability on Brady's part. Under no circumstances will Brady be liable for any loss, damage, expense, or consequential damages of any kind arising in connection with the use, or inability to use, Brady's products.

Copyright 2022 W.H. Brady, N.V. | All Rights Reserved
Material may not be reproduced or distributed in any form without written permission.

Brady Europe | Industriepark C3 Lindestraat 20 | B9240 Zele | Belgium | Tel: +32 52.45.7811 | Fax: +32 52.45.7812