

**BRADY B-460 GLOSSY WHITE LOW PROFILE THERMAL TRANSFER PRINTABLE POLYIMIDE LABEL STOCK**

TDS No. B-460  
Effective Date: 10/08/2022

**Description:**

**GENERAL**

**Print Technology:** Thermal Transfer

**Material Type:** White Polyimide

**Finish:** Glossy

**Adhesive:** Permanent Acrylic

**APPLICATIONS**

Printed circuit board and electronic component preprocess labeling

**RECOMMENDED RIBBONS**

Brady Series R6300

Brady Series R4900A (Available in APAC Region Only)

Brady Series R8965 (Available in APAC Region Only)

**REGULATORY/AGENCY APPROVALS**

**UL PENDING**

Brady B-460 is compliant to the halogen requirements of IEC 61249-2-21 (2003-11). Pending APAC Testing (Wanting)

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](http://www.bradycanada.ca/weee-rohs)

In Europe: [www.bradyeurope.com/rohs](http://www.bradyeurope.com/rohs)

In Japan: [www.brady.co.jp/products/labelsuse/rohs](http://www.brady.co.jp/products/labelsuse/rohs)

All other regions: [www.bradyid.com/weee-rohs](http://www.bradyid.com/weee-rohs)

**SPECIAL FEATURES**

The B-460 is a low profile glossy white circuit board label.

B-460 is designed to withstand multiple cycles of harsh condition washes for printed circuit boards without reflow or preheating for improving print performance.

**Details:**

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total (excluding liner)	0.0016 inch (.04009 mm) 0.0012 inch (.03126 mm) 0.0000 inch (.07135 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 24 hour dwell	44 oz/in 34 oz/in (37 N/100mm) 57 oz/in 00 oz/in (00 N/100 mm)
-Epoxy PC Board	20 minute dwell 24 hour dwell	00 oz/in (00 N/100 mm) 00 oz/in (00 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 1 second dwell	46 oz ( 1300 g) 32 oz (900 g)
Drop Shear	PSTC-7 (except use 1/2" x 1" sample)	> 80 hours >96 hours

Performance properties tested on this label material printed with the Brady Series R6300 ribbon. Printed samples were laminated to aluminum and allowed to dwell 24 hours before exposure to the indicated environmental conditions.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
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Short Term High Service Temperature	80 seconds hours at various temperature <b>NEED 80 sec 270</b>	Label discolors slightly at 300°C and 330°C, and discolors moderately at 350°C, but remains functional.
	5 minutes at hours at various temperature	No visible effect to label at 260°C, label discolors slightly at 280°C, moderately at 300°C, but remains functional.
	2 hours at hours at various temperature	No visible effect to label at 170°C
Long Term High Service Temperature	1000 hours at various temperature	No visible effect to label at 100°C, No visible effect to label at 120°C, Slight discoloration to label at 145°C, label 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% R.H.	No visible effect
Weatherability*	ASTM G155, Cycle 1 1000 hours in Xenon Arc Weatherometer	No visible effect
Salt Fog Resistance	ASTM B 117 30 days 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)	<b>R6300: Print legible xxxx (up to) 50 cycles</b>

\*B-460 is not recommended for outdoor use.

<b>PERFORMANCE PROPERTIES</b>	<b>CHEMICAL</b>
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B-460 samples printed with Series R6300 thermal transfer ribbon and the R8963 ribbon. Samples exposed to the indicated environments. Abrasion Performance tested with 10 strokes of a cotton applicator saturated with the tested fluid.

	Affect to Label	Affect To Print without Rub	Affect to Print with Rub
<b>Isopropyl Alcohol 99%, 82°C - 10 minutes</b>			
<b>DI water 100°C - 10 minutes</b>			

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 application.

**Trademarks:**

- ANSI: American National Standards Institute (U.S.A.)
- ASTM: American Society for Testing and Materials (U.S.A.)
- PSTC: Pressure Sensitive Tape Council (U.S.A.)
- Polyken™ is a trademark of Testing Machines Inc.
- UL: Underwriters Laboratories Inc. (U.S.A.)

**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

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