

BRADY B-350 AquALERT(TM) THERMAL TRANSFER PRINTABLE WATER INDICATING POLYESTER/PAPER LAMINATE LABEL STOCK

TDS No. B-350
Effective Date: 06/29/2011

Description:

GENERAL

Print Technology: Thermal Transfer
Material Type: Water Indicating Polyester/Paper Laminate
Finish: Gloss White
Adhesive: Acrylic

APPLICATIONS

Locations where clear evidence of water intrusion is desired for controlling invalid warranty claims, failure analysis, design assistance or trouble shooting (service and repair).

RECOMMENDED RIBBONS

Brady Series R6000, R4900, R7961* black and R4400 colored (red, blue, green)
*Note: The R7961 ribbon series is only available in Europe

REGULATORY/AGENCY APPROVALS

UL: B-350 is a UL Recognized Component to UL969 Labeling and Marking Standard when printed with Brady Series R4900 and Series 7961 ribbons. See UL file MH17154 for specific details. UL information can be accessed on line at UL.com. Search in Certifications area.

Brady B-350 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

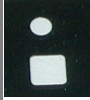

SPECIAL FEATURES

B-350 is designed to permanently change colors (white to red) when water based solutions contact the edge of the label. It will withstand high heat and humidity environments without false indication appearing. B-350 is available in both thermal transfer printable configurations and blank indicating shapes/designs.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D1000 -Total (excluding liner)	0.0102 inch (0.259 mm)
Adhesion to: -Stainless Steel -Textured ABS -Polycarbonate	ASTM D1000 20 minute dwell 24 hour dwell	Data unobtainable due to the polyester layer delaminating from the paper layer during testing after both 20 minute and 24 hour dwell for all test surfaces.
Tack	ASTM D 2979 Polyken™ Probe Tack 0.5 second dwell	Tacks are greater than 35 oz (1000 g) and exceed the equipment testing range of 1000 g.

PERFORMANCE PROPERTIES - ENVIRONMENTAL		
Performance properties tested on B-350 printed with R6000 ribbon on Bradyprinter™ 300 MVP thermal transfer printer. Printed samples were laminated to glass microscope slides and allowed to dwell 24 hours prior to exposure to the indicated environments.		
ENVIRONMENT	TEST METHOD	TYPICAL RESULTS
Long Term High Service Temperature	30 days at 90°C	No visible effects to label, print or adhesive at 194°F (90°C). Material discolored (slightly browned) but functional up to 248 °F (120°C).
	30 days at 120°C	
Long Term Low Service Temperature	30 days at -70°C	

		 No visible effect. (0.16" dia circle & 0.25" square shown)
Humidity Resistance	30 days at 122 °F (50°C)/95% relative humidity	 Slight discoloration (very slight pink) to label. (0.16" dia circle & 0.25" square shown)
Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer	B-350 is not recommended for outdoor use.
UV Light Resistance	30 days in UV Sunlighter™ 100	No visible effect to print, label or adhesive.

*B-350 is not recommended for outdoor use.

PERFORMANCE PROPERTIES - CHEMICAL		
Samples of B-350 were printed with the R-6200 ribbon on the BradyPrinter™ 300X-Plus thermal transfer printer. The printed samples were laminated to a 10 mil white polyester substrate and allowed to dwell for 24 hours prior to testing. 0.25" x 1.50" samples were immersed in the test solvent for 1 second, 60 seconds, or 120 seconds. The samples were removed and rubbed 10 times with a cotton swab saturated.		
CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE	
	Effects to Print after Rub	Percent of Label Color Change after 1 second, 60 seconds, 120 seconds
Isopropyl Alcohol	No visible effect	0% 0% 0%
Window Cleaner with Ammonia	No visible effect	0 - 10% 40 - 60% 40 - 60%
Beer	No visible effect	0 - 10% 40 - 60% 40 - 60%
Coca Cola®	No visible effect	5 - 25% 40 - 60% 50 - 75%
Black Coffee	No visible effect	10 - 20% 40 - 60% 80 - 100%
Tap Water	No visible effect	10 - 20% 40 - 60% 40 - 60%
Deionized Water	No visible effect	10 - 20% 25 - 50% 40 - 60%

Product testing, customer feedback, and history of similar products, support a customer performance expectation of at least **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*. We are confident that our product will perform well beyond this time frame. However, it remains the responsibility of the user to assess the risk of using such product. We encourage customers to develop functional testing protocols that will qualify a product's fitness for use in their actual applications.

Trademarks:

ASTM: American Society for Testing and Materials (U.S.A.)
 AquALERT™ is a trademark of Brady Worldwide, Inc.
 BradyPrinter™ is a trademark of Brady Worldwide, Inc.
 Coca Cola® is a registered trademark of The Coca-Cola Company
 Sunlighter™ is a trademark of the Test Lab Apparatus Company
 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 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.

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