

BRADY B-7576 THERMAL TRANSFER PRINTABLE TAMPER-EVIDENT METALLIZED POLYESTER LABEL STOCK

TDS No. B-7576
Effective Date: 03/05/2019

Description:

GENERAL

Print Technology: Thermal Transfer
Material Type: Metallized Polyester
Finish: Matte Silver
Adhesive: Tamper Indicating Acrylic

APPLICATIONS

Rating and serial plates that require high performance and evidence of label removal.

RECOMMENDED RIBBONS

Brady Series R6000 Halogen Free
Brady Series R4400 colored (red, blue, and green)

REGULATORY/AGENCY APPROVALS

UL: Brady B-7576 is a UL Recognized component label when printed with the Brady Series R4900, the Brady Series R6000 Halogen Free, the Brady Series R6200 and the Brady Series R7961 ribbons. See UL file MH 17154. UL information can be accessed online 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-7576 is designed to leave a "VOID" footprint when the label is removed. In addition, a "VOID" pattern will appear on the top surface of the label in order to prevent it from being reused. Recommended 24 hour room temperature dwell before removal for full tamper evident performance. The adhesive nature of product does not allow for repositioning and requires minimal handling in order to prevent prematurely exposed VOID pattern.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total (excluding liner)	0.0021 inch (0.053 mm) 0.0007 inch (0.018 mm) 0.0028 inch (0.071 mm)
Adhesion to:	ASTM D 1000	
-Stainless Steel	30 minute dwell	39 oz/in (43 N/100 mm)
-Aluminum	30 minute dwell	34 oz/in (37 N/100 mm)
-Glass	30 minute dwell	41 oz/in (45 N/100 mm)
-Smooth ABS	30 minute dwell	40 oz/in (44 N/100 mm)
-Textured ABS	30 minute dwell	5 oz/in (5 N/100 mm)
-Polypropylene	30 minute dwell	31 oz/in (34 N/100 mm)
-Painted Enamel	30 minute dwell	36 oz/in (39 N/100 mm)
-Powder Coated Enamel	30 minute dwell	8 oz/in (9 N/100 mm)

Drop Shear	PSTC-7 (except use 1/2" x 1" sample)	23 hours
Tensile Strength and Elongation	ASTM D 1000 -Machine Direction -Cross Direction	50 lbs/in (876 N/100 mm), 78% 54 lbs/in (946 N/100 mm), 85%
Application Temperature	Lowest application temperature to stainless steel	39°F (4°C)

Tamper evident adhesive performance properties were tested on B-7576 laminated to the indicated surfaces, exposed to the indicated environments and removed from the environments prior to testing. The label was removed at a 135° angle with a peel rate of 90 in/min and the remaining VOID adhesive pattern on each surface was observed.

SURFACE TYPE	SUBJECTIVE OBSERVATION OF ADHESIVE PERFORMANCE (PERCENTAGE OF VOID PATTERN RETAINED)			
	24 hours @ 72°F (22°C)	30 days at 104°F (40°C)	30 days at -40°F (-40°C)	30 days at -94°F (-70°C)
Laminated to:				
-Stainless Steel	80%-95%	85%-100%	80%-95%	85%-100%
-Aluminum	80%-95%	80%-95%	80%-95%	85%-100%
-Glass	80%-95%	80%-95%	80%-95%	85%-100%
-Smooth ABS	85%-100%	85%-100%	85%-100%	85%-100%
-Textured ABS	20%-35%	30%-45%	15%-30%	10%-25%
-Polypropylene	80%-95%	75%-90%	80%-95%	85%-100%
-Painted enamel	85%-100%	80%-95%	85%-100%	85%-100%
-Powder coated metal	45%-60%	60%-75%	50%-65%	25%-40%

Performance properties tested on B7576 samples printed using the Brady Series R6000 Halogen Free thermal transfer ribbon. Printed samples of B-7576 were laminated to aluminum before exposure to the indicated environmental condition.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
High Service Temperature	30 days at 212°F (100°C)*	No visible effect
Low Service Temperature	30 days at -94°F (-70°C)	No visible effect
Humidity Resistance	30 days at 100°F (37°C), 95% R.H.	No visible effect
UV Light Resistance	30 days in UV Sunlighter™ 100	No visible effect
Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer	No visible effect to print. Some loss of tamper evidence

The tamper evident VOID pattern of B-7576 was retained after exposure to all of the listed conditions except for weatherometer.

* Continuous long term exposure to high temperature and high humidity levels may allow the VOID pattern to appear more obvious through the topside of the label.

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Samples printed with the Brady Series R6000 Halogen Free thermal transfer ribbons and then laminated to aluminum panels. Test was conducted at room temperature after 24 hour dwell. Testing consisted of 5 cycles of 10 minute immersions in the specified chemical reagent followed by 30 minute recovery periods. After final immersion, samples rubbed 10 times with cotton swab saturated with test fluid.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	LABEL STOCK SUBSTRATE/ADHESIVE	R6000 Halogen Free EFFECTS OF IMMERSION	R6000 Halogen Free COTTON SWAB RUBS
Methyl Ethyl Ketone	No visible effect	No visible effect	Ink removed
1,1,1-Trichloroethane	No visible effect	No visible effect	Ink removed
Toluene	No visible effect	No visible effect	Ink removed
Isopropyl Alcohol	No visible effect	No visible effect	No visible effect
Mineral Spirits	No visible effect	No visible effect	No visible effect
JP-8 Jet Fuel	No visible effect	No visible effect	No visible effect
SAE 20 WT Oil	No visible effect	No visible effect	No visible effect
Mil 5606 Oil	No visible effect	No visible effect	No visible effect
Gasoline	No visible effect	No visible effect	No visible effect
Rust Veto® 342	No visible effect	No visible effect	No visible effect
Skydrol® 500B-4	No visible effect	No visible effect	Ink removed
Super Agitene®	No visible effect	No visible effect	No visible effect
Deionized Water	No visible effect	No visible effect	No visible effect
3% Alconox® Detergent	No visible effect	No visible effect	No visible effect

10% Sodium Hydroxide Solution	Silver part of label gone (around edges)	No visible effect	No visible effect
10% Sulfuric Acid Solution	No visible effect	No visible effect	No visible effect

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:

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Rust Veto® is a registered trademark of the E.F. Houghton & Co.
Skydrol® is a registered trademark of the Monsanto Company
Sunlighter™ is a trademark of the Test Lab Apparatus Company
Super Agitene® is a registered trademark of Graymills Corporation
ASTM: American Society for Testing and Materials (U.S.A.)
PSTC: Pressure Sensitive Tape Council (U.S.A.)
SAE: Society of Automotive Engineers (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.

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