

BRADY B-434A THERMAL TRANSFER PRINTABLE GLOSS METALLIZED POLYESTER LABEL STOCK

TDS No. B-434A
Effective Date: 10/05/2022

Description:

GENERAL

Print Technology: Thermal Transfer
Material Type: Metallized Polyester
Finish: Gloss
Adhesive: Permanent Acrylic

APPLICATIONS

Rating plate and general purpose labeling on textured surfaces.

RECOMMENDED RIBBONS

Brady Series R6000 Halogen Free
Brady Series R4900

REGULATORY/AGENCY APPROVALS

UL: B-434A is a UL Recognized Component when printed with the Brady Series R4900 and the 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.

CSA: B-434A is a CSA Accepted material when printed with the Brady Series R4900 and the Brady Series R6000 ribbon. See CSA Acceptance Record LS 41833 for specific details. CSA information can be accessed online at <https://www.csagroup.org/testing-certification/product-listing/>

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-434A is designed to withstand numerous solvents while maintaining excellent image quality.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total (excluding liner)	0.002 inch (0.051 mm) 0.002 inch (0.051 mm) 0.004 inch (0.102 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 24 hour dwell	104 oz/in (114 N/100 mm) 113 oz/in (123 N/100 mm)
-Textured ABS	20 minute dwell 24 hour dwell	57 oz/in (62 N/100 mm) 69 oz/in (76 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	96 oz/in (105 N/100 mm) 111 oz/in (121 N/100 mm)

The following testing was performed on B-434A samples printed with the Brady Series R4900 and the Brady Series R6000 Halogen Free ribbons. Samples laminated to aluminum panels. All samples allowed to dwell 24 hours prior to testing. Unless noted, results are the same for both ribbons.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Long Term High Service Temperature	30 days at various temperatures	No visible effect at 266°F (130°C). Slight label discoloration at 293°F (145°C), label

		still functional.
Long Term Low Service Temperature	30 days at -94°F (-70°C)	No visible effect
Short Term High Service Temperature	5 minutes at various temperatures	No visible effect at 374°F (190°C). Slight label shrinkage at 392°F (200°C), label still functional
Humidity Resistance	30 days at 100°F (38°C), 95% R.H.	No visible effect
UV Light Resistance	ASTM G155, Cycle 1 (no spray) 30 days in Xenon test chamber	No visible effect
Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weather-Ometer®	No visible effect
Salt Fog Resistance	ASTM B117 30 days in 5% solution chamber	No visible effect
Abrasion Resistance	Taber Abraser, CS10 grinding wheel, 500 g/arm (Fed. Std. 191A, Method 5306)	Print legible after 100 cycles

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Samples were printed with the Brady Series R4900 and the Brady Series R6000 Halogen Free ribbons. Test was conducted at room temperature after a 24 hour dwell. Testing consisted of 5 cycles of 10 minute immersions in the specified chemical reagent followed by 30 minute recovery period. Samples were rubbed 10 times with a cotton swab immersed in test fluid after final immersion.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE				
	EFFECT TO LABEL STOCK	EFFECTS TO PRINTED IMAGE			
		R6000 Halogen Free		R4900	
		WITHOUT RUB	WITH RUB	WITHOUT RUB	WITH RUB
Methyl Ethyl Ketone	No visible effect	5	5	5	5
Toluene	No visible effect	5	5	5	5
Isopropyl Alcohol	No visible effect	1	1	1	1
Mineral Spirits	No visible effect	1	1	1	1
Gasoline	No visible effect	1	1	1	1
JP-8 Jet Fuel	No visible effect	1	1	1	1
Skydrol® 500B-4	No visible effect	3	5	5	5
MIL 5606 Oil	No visible effect	1	1	1	1
3% Alconox® Detergent	No visible effect	1	1	1	1
10% Sodium Hydroxide Solution	No visible effect	1	1	1	1
10% Sulfuric Acid Solution	No visible effect	1	1	1	1
Deionized Water	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 and/or topcoat removal
NP= print removed prior to rub

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 application.

Trademarks:

Alconox® is a registered trademark of Alconox Co.
Skydrol® is a registered trademark of Solutia Inc.
Weather-Ometer® is a registered trademark of Atlas Material Testing Technology LLC
ASTM: American Society for Testing and Materials (U.S.A.)
CSA: Canadian Standards Association
SAE: Society of Automotive Engineers (U.S.A.)
UL: Underwriters Laboratories Inc. (U.S.A.)
All S.I. Units (metric) are mathematically derived from the U.S. Conventional Units.

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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