

BRADY B-435A THERMAL TRANSFER PRINTABLE GLOSS METALLIZED POLYESTER LABEL STOCK

TDS No. B-435A
Effective Date: 6/9/2020

Description:

GENERAL

Print Technology: Thermal Transfer

Material Type: Metallized Polyester

Finish: Gloss

Adhesive: Permanent Acrylic

APPLICATIONS

Rating plate and general purpose labeling

RECOMMENDED RIBBONS

Brady Series R6000 Halogen Free

Brady Series R4900

REGULATORY/AGENCY APPROVALS

UL: B-435A 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-435A is a CSA Accepted material when printed with the Brady Series R4900 and Brady R6000 Series ribbon. See CSA Acceptance Record LS 41833 for specific details. CSA information can be accessed online at directories.csa-international.org.

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.bradyc.co.jp/products/labelsuse/rohs

All other regions: www.bradyc.com/weee-rohs

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total (excluding liner)	0.002 inch (0.0508 mm) 0.001 inch (0.0254 mm) 0.003 inch (0.0762 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 24 hour dwell	66 oz/in (72 N/100 mm) 69 oz/in (75 N/100 mm)
Drop Shear	PSTC-7 (except use 1/2" x 1" sample)	77 hours

Performance properties were tested on B-435A printed with the Brady Series R4900 and the Brady Series R6000 Halogen Free ribbons. Samples were laminated to aluminum panels. All samples were 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 rubbed 10 times with 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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