



Technical Data Sheet

BRADY B-486B THERMAL TRANSFER PRINTABLE METALLIZED POLYESTER LABEL STOCK

TDS No. B-486B
Effective Date: 06/21/2021

Description:

GENERAL

Print Technology: Thermal Transfer

Material Type: Metallized Polyester

Finish: Matte, light gray

Adhesive: Permanent rubber-based

APPLICATIONS

Rating and serial plates that utilize barcodes, alphanumerics, graphic symbols and logos and require nameplate-like quality.

RECOMMENDED RIBBONS

Brady Series R4300

REGULATORY/AGENCY APPROVALS

UL: B-486B is a UL Recognized Component to UL969 Labeling and Marking Standard when printed with the Brady Series R4300 Ribbon. See UL file MH17154 for specific details. UL information can be accessed online at UL.com in the UL Product iQ area.

CSA: B-486B is CSA Accepted to C22.2 No. 0.15-15 Adhesive Labels Standard when printed with the Brady Series R4300.

See CSA file 041833 for specific details. CSA Information accessed on line 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-486B is designed for high adhesion to textured metals, powder coated surfaces and low surface energy plastics. B-486B can withstand numerous solvents and variable temperatures when applied to various surfaces.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total (excluding liner)	0.0038 inch (0.097 mm) 0.0019 inch (0.048 mm) 0.0056 inch (0.142 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 24 hour dwell	116 oz/in (127 N/100 mm) 129 oz/in (141 N/100 mm)
-Textured ABS	20 minute dwell 24 hour dwell	45 oz/in (49 N/100 mm) 45 oz/in (49 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	98 oz/in (107 N/100 mm) 110 oz/in (120 N/100 mm)
-Painted Enamel	20 minute dwell 24 hour dwell	93 oz/in (104 N/100 mm) 93 oz/in (102 N/100 mm)

-Powder Coated Metal	20 minute dwell 24 hour dwell	80 oz/in (88 N/100 mm) 98 oz/in (107 N/100 mm)
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Performance properties were tested on B-486B printed with the Brady Series R4300 ribbon. Printed samples of B-486B were laminated to aluminum before exposure to the indicated environmental condition.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Long Term High Service Temperature	30 days at 248° F (120° C)	No visible effect
Long Term Low Service Temperature	30 days at -40° F (-40° C)	No visible effect
Humidity Resistance	30 days at 100° F (37° 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 B 117 30 days in 5% salt fog solution chamber	No visible effect
Abrasion Resistance	Taber Abraser, CS-10 grinding wheels, (Fed.Std.191A, Method 5306) 500g/arm, 100 cycles	Print still legible after 100 cycles

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Samples were printed with the Brady Series R4300 ribbon, laminated to flat aluminum panels and allowed to dwell 24 hours prior to test. Testing was conducted at room temperature. Testing consisted of 5 cycles of 10 minute immersions in the specified chemical followed by 30 minute recovery periods. After the final immersion the flat samples were rubbed 10 times with a cotton swab saturated with the test fluid.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	EFFECT TO LABEL STOCK	EFFECT TO PRINT	EFFECT TO PRINT WITH RUB
Methyl Ethyl Ketone	No visible effect	1	2
Toluene	No visible effect	1	3
Isopropyl Alcohol	No visible effect	1	1
Mineral Spirits	No visible effect	1	2
JP-8 Jet Fuel	No visible effect	1	2
ASTM #3 Oil	No visible effect	1	1
Mil 5606 Oil	No visible effect	1	1
Skydrol® 500B-4	No visible effect	1	1
Super Agitene®	No visible effect	1	1
Deionized Water	No visible effect	1	1
3% Alconox® Detergent	No visible effect	1	1

10% Sodium Hydroxide Solution	No visible effect	1	1
10% Sulfuric Acid Solution	No visible effect	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:

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.)

Alconox® is a registered trademark of Alconox Co.

Skydrol® is a registered trademark of the Monsanto Company

Super Agitene® is a registered trademark of Graymills Corporation

Weather-Ometer® is a registered trademark of Atlas Material Testing Technology

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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