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WHEN PERFORMANCE MATTERS MOST™

Technical Data Sheet

BRADY B-483A THERMAL TRANSFER PRINTABLE LABEL STOCK

TDS No. B-483A
Effective Date: 10/05/2022

Description:

GENERAL

Print Technology: Thermal transfer
Material Type: White Polyester
Finish: Glossy
Adhesive: Permanent Rubber Based

APPLICATIONS

B-483A is designed for high adhesion to textured metals and low surface energy plastics.
Print-On-Demand floor labels can be created using ToughStripe™ labels (B-483A colors overlaminated with B-634 clear polyester overlaminate).

RECOMMENDED RIBBONS

Brady Series R6000 Halogen Free
Brady Series R4900
Brady Series R4400 colored thermal transfer ribbons.

REGULATORY/AGENCY APPROVALS

UL: B-483A is a UL Recognized Component to UL969 Labeling and Marking Standard when printed with the Brady Series R6000 Halogen Free and the Brady Series R4900 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-483A is a CSA Accepted material when printed with the Brady Series R6000 Halogen Free ribbon. See CSA file 041833 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-483A is specifically designed to adhere to powder coated surfaces.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000	
	-Substrate	0.0020 inch (0.051 mm)
	-Adhesive	0.0020 inch (0.051 mm)
	-Total(excluding liner)	0.0040 inch (0.102 mm)
Adhesion to:	ASTM D 1000	
-Stainless Steel	20 minute dwell	155 oz/in (169 N/100 mm)
	24 hour dwell	160 oz/in (174 N/100 mm)
-Textured ABS	20 minute dwell	55 oz/in (60 N/100 mm)
	24 hour dwell	54 oz/in (59 N/100 mm)
-Polypropylene	20 minute dwell	140 oz/in (153 N/100 mm)
	24 hour dwell	143 oz/in (156 N/100 mm)

-Painted Enamel	20 minute dwell 24 hour dwell	144 oz/in (157 N/100 mm) 149 oz/in (162 N/100 mm)
-Powder Coated Metal	20 minute dwell 24 hour dwell	102 oz/in (111 N/100 mm) 104 oz/in (113 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 0.5 second dwell	39 oz (1122 g)

Performance properties tested on B-483A printed with the Brady Series R6000 Halogen Free and the Brady Series R4900 ribbons. Printed samples of B-483A were laminated to aluminum before exposure to the indicated environmental condition. Results the same for both ribbons unless noted otherwise.

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	30 days in UV Sunlighter™ 100	No visible effect
Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer	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, 250 g/arm (Fed. Std. 191A, Method 5306)	R6000 Halogen Free: Print legible after 100 cycles

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE

Samples printed with the Brady Series R6000 Halogen Free and the Brady Series R4900 ribbons. Testing was conducted 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		
	EFFECT TO LABEL STOCK	R4900	R6000 Halogen Free
Methyl Ethyl Ketone	Slight adhesive ooze	No visible effect w/o rub, complete print removal after rub	No visible effect w/o rub, complete print removal after rub
Toluene	No visible effect	No visible effect w/o rub, complete print removal after rub	No visible effect w/o rub, complete print removal after rub
Isopropyl Alcohol	No visible effect	No visible effect with or without rub	No visible effect with or without rub
Mineral Spirits	Slight adhesive ooze	No visible effect with or without rub	No visible effect with or without rub
JP-8 Jet Fuel	No visible effect	No visible effect with or without rub	No visible effect with or without rub
SAE 20 WT Oil	No visible effect	No visible effect with or without rub	No visible effect with or without rub
Mil 5606 Oil	Slight adhesive ooze	No visible effect with or without rub	No visible effect with or without rub
Speedi Kut Cutting Oil 332	No visible effect	No visible effect with or without rub	Not Tested
Gasoline	No visible effect	No visible effect w/o rub, slight print removal after rub	No visible effect

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Rust Veto® 342	No visible effect	No visible effect with or without rub	Not Tested
Skydrol® 500B-4	No visible effect	Moderate print removal w/o rub, complete print removal with rub	No visible effect w/o rub, severe print removal after rub
Super Agitene®	Slight adhesive ooze	No visible effect with or without rub	No visible effect with or without rub
Deionized Water	No visible effect	No visible effect with or without rub	No visible effect with or without rub
3% Alconox® Detergent	No visible effect	No visible effect with or without rub	No visible effect with or without rub
Northwoods™ Buzz Saw Citrus Degreaser	No visible effect	No visible effect	Not Tested

ToughStripe™ labels (B-483A colors overlaminated with B-634 clear polyester overlaminate) were tested in the following chemical reagents. Samples were allowed to dwell 24 hours at room temperature prior to testing. Dip testing consisted of 5 cycles of 10 minute immersions in the specified chemicals followed by 30 minute recovery periods. Samples were immersed in the chemical reagent for 7 days for the 7 day immersion test. Testing was conducted at room temperature.

CHEMICAL REAGENT	7 DAY IMMERSION	DIP TEST
30% Sulfuric Acid	NE	NE
10% Sulfuric Acid	NE	NE
30% Hydrochloric Acid	F	NE
10% Hydrochloric Acid	NE	NE
Glacial Acetic Acid	F	F
5% Acetic Acid	NE	NE
50% Sodium Hydroxide	F	F
10% Sodium Hydroxide	F	F
10% Ammonia	F	NE
5% Sodium Hypochlorite (bleach)	F	NE
10% Sodium Chloride	NE	NE
Methanol	F	NE
Isopropyl Alcohol	NE	NE
Heptane	F	NE
Mineral Spirits	F	F
Turpentine	F	NE
Diesel Fuel	NE	NE
Kerosene	F	NE
Gasoline	F	NE
ASTM #3 Oil	NE	NE
SAE 20 Oil	NE	NE
Alconox®	NE	NE
Water	NE	NE

NE = No Effect

F = Failed

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.)

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CSA: Canadian Standards Association
Northwoods™ is a trademark of the Superior Chemical Corporation
Polyken™ is a trademark of Testing Machines Inc.
Rust Veto® is a registered trademark of the E.F. Houghton & Co.
SAE: Society of Automotive Engineers (U.S.A.)
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
ToughStripe™ is a registered trademark of Brady Worldwide, Inc.
UL: Underwriters Laboratories, Inc. Units.

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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