

BRADY B-483 THERMAL TRANSFER PRINTABLE LABEL STOCK

TDS No. B-483
Effective Date: 06/27/2012

Description:

GENERAL

Print Technology: Thermal transfer

Material Type: White Polyester

Finish: Glossy

Adhesive: Permanent Rubber Based

APPLICATIONS

B-483 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-483 colors overlaminated with B-634 clear polyester overlaminate). ToughStripe™ labels are designed for use in cartridge form with the GlobalMark® 2 and BMP™ 71 label printer.

RECOMMENDED RIBBONS

Brady Series R6000

Brady Series R6000 Halogen Free (previously known as R6000HF)

Brady Series R4900

Brady Series R4400 colored thermal transfer ribbons.

REGULATORY/AGENCY APPROVALS

UL: B-483 is a UL Recognized Component to UL969 Labeling and Marking Standard when printed with Brady Series R6000 and Series R6000 Halogen Free ribbons. See UL file MH17154 for specific details. UL information can be accessed on line at UL.com. Search in *Certifications* area. The Brady Series R4900 ribbon is also UL approved.

CSA: B-483 is CSA Accepted to C22.2 No.0.15-95 Adhesive Labels Standard when printed with Brady Series R6000 ribbon. See CSA file 041833 for specific details. CSA information can be accessed online at directories.csa-international.org.

Brady B-483 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

SPECIAL FEATURES

B-483 is specifically designed to adhere to powder coated surfaces.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total	0.0020 inch (0.051 mm) 0.0020 inch (0.051 mm) 0.0040 inch (0.102 mm)
Adhesion to:	ASTM D 1000	
-Stainless Steel	20 minute dwell 24 hour dwell	155 oz/in (169 N/100 mm) 160 oz/in (174 N/100 mm)
-Textured ABS	20 minute dwell 24 hour dwell	55 oz/in (60 N/100 mm) 54 oz/in (59 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	140 oz/in (153 N/100 mm) 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-483 printed with Series R6000, R6000 Halogen Free and R4900 ribbons. Printed

samples of B-483 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: Print legible after 100 cycles R6000 Halogen Free: Print legible after 100 cycles

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Samples printed with Series R6000, R6000 Halogen Free and 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	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	No visible effect w/o rub, complete print removal after rub
1,1,1-Trichloroethane	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	Obsolete
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	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	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	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	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	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	No visible effect with or without rub
Speedi Kut Cutting Oil 332	No visible effect	No visible effect with or without rub	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 w/o rub, slight print removal after rub	No visible effect
Rust Veto® 342	No visible effect	No visible effect with or without rub	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, complete print removal after 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	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	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	No visible effect with or without
Northwoods™ Buzz Saw Citrus Degreaser	No visible effect	No visible effect	No visible effect	Not Tested

ToughStripe™ labels (B-483 colors overlaminated with B-634 clear polyester overlaminate) designed for use in cartridge form with the GlobalMark® 2 and BMP™ 71 label printers 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

Product testing, customer feedback, and history of similar products, support a customer performance expectation of at least **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 degrees F (27°C) and 60% RH*. We are confident that our product will perform well beyond this time frame. However, it remains the responsibility of the user to assess the risk of using such product. We encourage customers to develop functional testing protocols that will qualify a product's fitness for use, in their actual applications.

Trademarks:

ASTM: American Society for Testing and Materials (U.S.A.)

Alconox® is a registered trademark of Alconox Co.

All S.I. Units (metric) are mathematically derived from the U.S. Conventional

BMP® is a registered trademark of Brady Worldwide, Inc.

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CSA: Canadian Standards Association

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Polyken™ is a trademark of Testing Machines Inc.

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SAE: Society of Automotive Engineers (U.S.A.)

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UL: Underwriters Laboratories, Inc.

Units.

Note: All values shown are averages and should not be used for specification purposes.

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