

B-484 FLEXIBLE THERMAL TRANSFER PRINTABLE LABEL STOCK

TDS No. B-484
Effective Date: 06/22/2015

Description:

BRADY B-484 FLEXIBLE THERMAL TRANSFER PRINTABLE LABEL STOCK

GENERAL

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

APPLICATIONS

B-484 is designed for high adhesion to textured metals, low surface energy plastics, as well as angled and curved surfaces.

RECOMMENDED RIBBONS

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

REGULATORY/AGENCY APPROVALS

UL: Recognized to UL969 Labeling and Marking Standard when printed with Brady Series R6000 Halogen Free, R6000 and R4900 ribbons (see UL file MH17154 for specific details).

Brady B-484 is RoHS compliant to RoHS Directive 2011/65/EU.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total	0.0010 inch (0.025 mm) 0.0020 inch (0.051 mm) 0.0030 inch (0.076 mm)
Adhesion to:	ASTM D 1000	
-Stainless Steel	20 minute dwell 24 hour dwell	194 oz/in (212 N/100 mm) 194 oz/in (212 N/100 mm)
-Textured ABS	20 minute dwell 24 hour dwell	90 oz/in (99 N/100 mm) 90 oz/in (99 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	158 oz/in (173 N/100 mm) 161 oz/in (176 N/100 mm)
-Painted Enamel	20 minute dwell 24 hour dwell	147 oz/in (161 N/100 mm) 172 oz/in (183 N/100 mm)
-Powder Coated Metal	20 minute dwell 24 hour dwell	102 oz/in (111 N/100 mm) 103 oz/in (112 N/100 mm)
Tensile Strength and Percent Strength @ Break	ASTM D 1000 - Machine Direction - Cross Direction	18.1 lbs/in (317 N/100mm), 29% 25.5 lbs/in (447 N/100mm), 35%
Tack	ASTM D 2979 Polyken™ Probe Tack 0.5 second dwell	47 oz (1347 g)

Performance properties tested on B-484 printed with R6000, R6000Halogen Free and R4900 Series ribbons. Printed samples of B-484 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)	Slight yellowing of adhesive around edges
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
CURVED SURFACE PERFORMANCE	TEST CONDITIONS	EFFECT TO LABEL
90 Degree Angled Surface a. Rough Cast Aluminum b. Textured Powder Coated Metal c. Glass	30 days at 248°F (120°C)	Slight yellowing of adhesive around edges a. No visible effect b. No visible effect c. No visible effect
2.50 Inch Outer Diameter (Curved) a. Glass b. Textured Powder Coated Metal	30 days at 248°F (120°C)	Slight yellowing of adhesive around edges a. No visible effect b. No visible effect
0.75 Inch Outer Diameter (Curved) a. Glass b. Textured Powder Coated Metal	30 days at 248°F (120°C).	Slight yellowing of adhesive around edges a. No visible effect b. No visible effect
90 Degree Angled Surface a. Rough Cast Aluminum b. Textured Powder Coated Metal c. Glass	30 days at 37C/95%RH	a. No visible effect b. No visible effect c. No visible effect
2.50 Inch Outer Diameter (Curved) a. Glass b. Textured Powder Coated Metal	30 days at 37C/95%RH	a. No visible effect b. No visible effect
0.75 Inch Outer Diameter (Curved) a. Glass b. Textured Powder Coated Metal	30 days at 37C/95%RH	a. No visible effect b. No visible effect

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Samples printed with R6000 and R6000Halogen Free Series ribbon. Tests were conducted after a 24 hour dwell. Testing consisted of 5 cycles of 10 minute immersions in the specified chemical reagent followed by 30 minute recovery periods. After the final immersion, samples were rubbed 10 times with cotton swab saturated with chemical reagent. Note: The aluminum panel is angled at 90 degrees.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	EFFECT TO LABEL STOCK	R6000	R6000Halogen Free
Methyl Ethyl Ketone	Slight adhesive ooze	No visible effect to topcoat or ribbon without rub, complete print removal after rub.	No visible effect to topcoat or ribbon without rub, complete print removal after rub.
1,1,1-Trichloroethane	No visible effect	No visible effect to topcoat or ribbon without rub, complete print removal after rub.	Obsolete
Toluene	No visible effect	No visible effect to topcoat or ribbon without rub, complete print removal after rub.	No visible effect to topcoat or ribbon without rub, complete print removal after rub.
Isopropyl Alcohol	No visible effect	No visible effect to topcoat or print with rub	No visible effect to topcoat or print with rub
Mineral Spirits	Slight adhesive ooze	No visible effect to topcoat or print with rub	No visible effect to topcoat or print with rub
JP-8 Jet Fuel	No visible effect	No visible effect to topcoat or print with rub	No visible effect to topcoat or print with rub
SAE 20 WT Oil	No visible effect	No visible effect to topcoat or print with rub	No visible effect to topcoat or print with rub
Mil 5606 Oil	Slight adhesive ooze	No visible effect to topcoat or print with rub	No visible effect to topcoat or print with rub
Speedi Kut Cutting Oil 332	No visible effect	No visible effect to topcoat or	Not Tested

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

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.

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 Rust Veto® is a registered trademark of the E.F. Houghton & Co.
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 ASTM: American Society for Testing and Materials (U.S.A.)
 SAE: Society of Automotive Engineers (U.S.A.)
 UL: Underwriters Laboratories, Inc.
 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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