Technical Data Sheet

BRADY B-484A FLEXIBLE THERMAL TRANSFER PRINTABLE LABEL STOCK

TDS No. B-484A
Effective Date: 1/18/2019

Description:

GENERAL

Print Technology: Thermal transfer
Material Type: Polyester
Finish: Gloss white
Adhesive: Permanent Rubber Based

APPLICATIONS

B-484A 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
Brady Series R4900
Brady Series R4400 colored thermal transfer ribbons

REGULATORY/AGENCY APPROVALS

UL: B-484A 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.

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

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total (excluding liner)	 0.0010 inch (0.025 mm) 0.0020 inch (0.051 mm) 0.0030 inch (0.076 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 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 were tested on B-484A printed with the Brady Series R6000 Halogen Free and the Brady Series R4900 ribbons. Printed samples of B-484A 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

Samples were printed with the Brady Series R6000 Halogen Free 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 Halogen Free
Methyl Ethyl Ketone	Slight adhesive ooze	No visible effect to topcoat or ribbon without rub, complete print removal after rub.
Toluene	No visible effect	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
Mineral Spirits	Slight adhesive ooze	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
SAE 20 WT Oil	No visible effect	No visible effect to topcoat or print with rub
Mil 5606 Oil	Slight adhesive ooze	No visible effect to topcoat or print with rub
Speedi Kut Cutting Oil 332	No visible effect	Not Tested

Gasoline	No visible effect	No visible effect to topcoat or print with rub
Rust Veto® 342	No visible effect	Not Tested
Skydrol® 500B-4	No visible effect	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
Deionized Water	No visible effect	No visible effect to topcoat or print with rub
3% Alconox® Detergent	No visible effect	No visible effect to topcoat or print with rub
Northwoods™ Buzz Saw Citrus Degreaser	No visible effect	Not tested

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.
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.
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
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.
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