Technical Data Sheet

BRADY B-488 MATTE WHITE POLYESTER LABEL STOCK

TDS No. B-488
Effective Date: 03/26/2019

Description:
GENERAL
Print Technology: Thermal Transfer
Material Type: Polyester
Finish: Matte
Adhesive: Permanent acrylic

APPLICATIONS
General and bar code labeling

RECOMMENDED RIBBONS
Brady Series R4300
Brady Series R6200 (alternate)

REGULATORY/AGENCY APPROVALS
UL: B-488 is a UL Recognized Component to UL969 Labeling and Marking Standard when printed with the Brady Series R4300 and the Brady Series R6200 ribbons. See UL file MH17154 for specific details. UL information can be accessed online at UL.com in the UL Product iQ area.

CSA: B-488 is CSA Accepted when printed with the Brady Series R4300 and the Brady Series R6200 ribbons. See CSA file 041833 for specific details. CSA information can be accessed online at *directories.csa-international.org*.

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-488 is designed to withstand numerous solvents and variable temperatures when applied to various surfaces including stainless steel and polypropylene.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total (excluding liner)	 0.0027 inch (0.0685 mm) 0.0010 inch (0.0254 mm) 0.0037 inch (0.0939 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 24 hour dwell	 41 oz/in (44.9 N/100 mm) 45 oz/in (52.5 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	27 oz/in (29.6 N/100 mm) 30 oz/in (32.8 N/100 mm)
-Textured ABS	20 minute dwell 24 hour dwell	8 oz/in (9.9 N/100 mm) 9 oz/in (10.9 N/100 mm)
-FR-4 Epoxy PCB Material	20 minute dwell 24 hour dwell	35 oz/in (38.3 N/100 mm) 45 oz/in (51.4 N/100 mm)
Tack	ASTM D 2979	

	Polyken™ Probe Tack 1 second dwell	35.2 oz (1000 g)
Tensile Strength and Elongation	ASTM D 1000 -Machine direction	35 lbs/in (612 N/100 mm), 43%
Application Temperature	Lowest application temperature to stainless steel	50°F (10°C)

The following testing was performed with B-488 printed with the Brady Series R4300 and the Brady Series R6200 ribbons. All samples were allowed to dwell 24 hours prior to testing. Samples were tested on flat aluminum panels. Results are the same for both ribbons unless stated otherwise.

PERFORMANCE PROPERTIES	TEST METHODS	EFFECT TO TAPE	EFFECT TO PRINT
High Service Temperature	30 days at 320°F (160°C)	No visible effect at 145°C, slight yellowing at 160°C	No visible effect
Low Service Temperature	30 days at -40°F (-40°C)	No visible effect	No visible effect
Humidity Resistance	30 days at 100°F (37°C), 95% R.H.	No visible effect	No visible effect
UV Light Resistance	30 days in UV Sunlighter™ 100	No visible effect	No visible effect
Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer	No visible effect	No visible effect
Salt Fog Resistance	ASTM B 117 30 days in 5% Salt Fog Chamber	No visible effect	No visible effect
Abrasion Resistance	Taber Abraser, CS-10 grinding wheels, 500 g/arm, 100 cycles (Fed. Std. 191A, Method 5306)	No visible effect	Print still legible after 100 cycles

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE

Samples were printed with the Brady Series R4300 ribbon, laminated to flat aluminum panels and allowed to dwell 24 hours prior to test. 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 cotton swabs. Testing was conducted at room temperature.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE	
	EFFECT TO LABEL STOCK	R4300
Methyl Ethyl Ketone	No visible effect	Slight smear when rubbed
1,1,1-Trichloroethane	No visible effect	Moderate smear when rubbed
Toluene	No visible effect	Moderate smear when rubbed
Freon® TMS	No visible effect	Slight smear when rubbed
Isopropyl Alcohol	No visible effect	No visible effect
Mineral Spirits	No visible effect	Slight smear when rubbed

JP-8 Jet Fuel	No visible effect	Moderate smear when rubbed
ASTM #3 Oil	No visible effect	No visible effect
Mil 5606 Oil	No visible effect	No visible effect
Skydrol® 500B-4	No visible effect	Slight smear when rubbed
Super Agitene®	No visible effect	No visible effect
Deionized Water	No visible effect	No visible effect
3% Alconox® Detergent	No visible effect	No visible effect
10% Sodium Hydroxide Solution	No visible effect	No visible effect
10% Sulfuric Acid Solution	No visible effect	No visible effect

Samples were printed with the Brady Series R6200 ribbon, laminated to flat aluminum panels and allowed to dwell 24 hours prior to test. 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 cotton swabs. Testing was conducted at room temperature.

CHEMICAL REAGENT	**SUBJECTIVE OBSERVATION OF VISUAL CHANGE**	
	EFFECT TO LABEL STOCK	**R6200**
Methyl Ethyl Ketone	No visible effect	Severe smear when rubbed
1,1,1-Trichloroethane	No visible effect	Slight smear when rubbed
Toluene	No visible effect	Moderate smear when rubbed
Freon® TMS	No visible effect	Moderate smear when rubbed
Isopropyl Alcohol	No visible effect	No visible effect
Mineral Spirits	No visible effect	No visible effect
JP-8 Jet Fuel	No visible effect	No visible effect
ASTM #3 Oil	No visible effect	No visible effect
Mil 5606 Oil	No visible effect	No visible effect
Skydrol® 500B-4	No visible effect	Severe smear when rubbed
Super Agitene®	No visible effect	No visible effect
Deionized Water	No visible effect	No visible effect
3% Alconox® Detergent	No visible effect	No visible effect
10% Sodium Hydroxide Solution	No visible effect	No visible effect
10% Sulfuric Acid Solution	No visible effect	No visible effect

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.
Freon® is a registered trademark of Du Pont de Nemours, E.I. and Company
Polyken™ is trademark of Testing Machines Inc.
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.)
CSA: Canadian Standards Association
UL: Underwriters Laboratories Inc. (U.S.A.)
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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