



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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