



BRADY B-488 MATTE WHITE POLYESTER LABEL STOCK

TDS No. B-488
 Effective Date: 10/03/2006

Description:

GENERAL

Print Technology: Thermal Transfer

Material Type: White Polyester

Finish: Matte white

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 UL 969 Labeling and Marking Standard when printed with Brady Series R4300 and R6200 ribbons. See UL file MH17154 for specific details. UL information can be accessed online at *UL.com*. Search in *Certifications* area.

CSA: B-488 is a CSA Accepted to C22.2 No.0.15-95 Adhesive Labels Standard when printed with the Brady Series R4300 or R6000 ribbons. See CSA file 041833 for specific details. CSA information can be accessed online at *directories.csa-international.org*.

Brady B-488 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

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 | 0.0036 inch (0.0914 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 is performed with the B-488 printed with Brady R4300 & R6200 ribbons using a Brady 300X thermal transfer printer. 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 R4300 ribbon using a Brady 300X printer, 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 UPON IMMERSION | EFFECT AFTER COTTON SWAB RUB |
| 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 R6200 ribbon using a Brady 300X printer, 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 UPON IMMERSION | EFFECT AFTER COTTON SWAB RUB |
| 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:

Two years when stored in its original packaging in an environment below 80°F (27°C) and 60%RH.

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

