

BRADY B-432 THERMAL TRANSFER PRINTABLE GLOSSY CLEAR POLYESTER LABEL STOCK

TDS No. B-432
Effective Date: 01/18/2019

Description:

GENERAL

Print Technology: Thermal transfer
Material Type: Clear polyester
Finish: Glossy clear
Adhesive: Permanent acrylic

APPLICATIONS

Rating and serial plates using alphanumerics, barcodes, graphic symbols and logos that require name plate quality.

RECOMMENDED RIBBONS

Brady Series R6000 Halogen Free
Brady Series R4400 (colors - red, blue, green, white)
Brady Series R4900 (alternate)

REGULATORY/AGENCY APPROVALS

UL: B432 is a UL Recognized Component to UL969 Labeling and Marking Standard when printed with the Brady Series R6000 Halogen Free ribbon. See UL file MH17154 for specific details. UL information can be accessed on-line at *UL.com*. Search in *Certifications* area. The Brady Series R4900 ribbon is also UL approved.

CSA: B-432 is CSA Accepted when printed with the Brady Series R6000 ribbon. 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-432 is designed to withstand exposure to numerous solvents and exhibits good adhesion to many metal and other types of surfaces, including textured surfaces and low surface energy plastics.

Details:

| PHYSICAL PROPERTIES | TEST METHODS | AVERAGE RESULTS |
|-----------------------|--|--|
| Thickness | ASTM D 1000 -Substrate -Adhesive -Total | 0.002 inch (0.0508 mm) 0.002 inch (0.0508 mm) 0.004 inch (0.1016 mm) |
| Adhesion to: | ASTM D 1000 | |
| -Stainless Steel | 20 minute dwell 24 hour dwell | 47 oz/inch (51 N/100 mm) 55 oz/inch (60 N/100 mm) |
| -Textured ABS | 20 minute dwell 24 hour dwell | 30 oz/inch (33 N/100 mm) 35 oz/inch (38 N/100 mm) |
| -Polypropylene | 20 minute dwell 24 hour dwell | 47 oz/inch (51 N/100 mm) 51 oz/inch (55 N/100 mm) |
| -Enamel Painted Metal | 20 minute dwell 24 hour dwell | 54 oz/inch (59 N/100 mm) 61 oz/inch (67 N/100 mm) |
| -Powder Coated Metal | 20 minute dwell 24 hour dwell | 45 oz/inch (49 N/100 mm) 50 oz/inch (55 N/100 mm) |
| Tack | ASTM D 2979 Polyken™ Probe Tack 0.5 second dwell | 37 oz (1150 g) |

| | | |
|---------------------------------|-------------------------|---------------------------------|
| Tensile Strength and Elongation | ASTM D 1000 -Machine | 45 lbs/inch (788 N/100 mm), 75% |
| Dielectric Strength | ASTM D 1000 | 7000 Volts |

Performance properties tested on B-432 printed with the Brady Series R4900 and the Brady Series R6000 Halogen Free ribbons. Printed samples were laminated to aluminum and allowed to dwell 24 hours before exposure to the indicated environments. Unless noted, results are the same for both ribbons.

| PERFORMANCE PROPERTIES | TEST METHOD | TYPICAL RESULTS |
|--------------------------|--|-------------------|
| High Service Temperature | 30 days at 212°F (100°C) | No visible effect |
| Low Service Temperature | 30 days at -40°F (-40°C) | No visible effect |
| Humidity Resistance | 30 days at 100°F (37°C) and 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 |

| PERFORMANCE PROPERTY | CHEMICAL RESISTANCE |
|----------------------|---------------------|
|----------------------|---------------------|

Samples printed with the Brady Series R4900 and the Brady Series R6000 Halogen Free ribbons. Samples laminated to aluminum panels and allowed to dwell 24 hours prior to testing. Test conducted at room temperature. Testing consisted of 5 cycles of 10 minute immersions in the specified test fluid followed by a 30 minute recovery period. After final immersion, samples rubbed 10 times with cotton swab saturated with test fluid.

| CHEMICAL REAGENT | SUBJECTIVE OBSERVATION OF VISUAL CHANGE | | |
|-------------------------------|---|---|---|
| | EFFECT TO LABEL STOCK | R4900 | R6000 Halogen Free |
| Methyl Ethyl Ketone | Slight adhesive ooze | No visible effect w/o rub, complete print removal after rub | No visible effect w/o rub, complete print removal after rub |
| Toluene | Slight adhesive ooze | No visible effect w/o rub, complete print removal after rub | No visible effect w/o rub, complete print removal after rub |
| Isopropyl Alcohol | No visible effect | No visible effect | No visible effect |
| Mineral Spirits | No visible effect | No visible effect | No visible effect |
| JP-8 Jet Fuel | Slight adhesive ooze | No visible effect | No visible effect |
| ASTM #3 Oil | No visible effect | No visible effect | No visible effect |
| Mil 5606 Oil | No visible effect | No visible effect | No visible effect |
| Gasoline | Slight adhesive ooze | No visible effect w/o rub, slight print removal after rub | No visible |
| Skydrol® 500B-4 | Slight adhesive ooze | No visible effect w/o rub, complete print removal after rub | No visible effect w/o rub, severe print removal after rub |
| Super Agitene® | No visible effect | No visible effect | No visible effect |
| BIOACT® EC-7R™ | Slight adhesive ooze | No visible effect | Not tested |
| Deionized Water | No visible effect | No visible effect | No visible effect |
| 3% Alconox® Detergent | No visible effect | No visible effect | No visible effect |
| 10% Sodium Hydroxide Solution | No visible effect | No visible effect | No visible effect |
| 10% Sulfuric Acid Solution | No visible effect | No visible effect | No visible effect |

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.

BIOACT® is a registered trademark of Petroferm Inc.

EC-7™ is a trademark of Petroferm Inc.

Polyken™ is a 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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