

BRADYBONDZ™ B-430 THERMAL TRANSFER PRINTABLE GLOSSY CLEAR POLYESTER LABEL STOCK

TDS No. B-430
Effective Date: 10/05/2022

Description:

GENERAL

Print Technology: Thermal transfer

Materials Type: Clear polyester

Finish: Glossy

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 and R6200 (alternates)

REGULATORY/AGENCY APPROVALS

UL: B-430 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 online at www.ul.com in the UL Product iQ area.

CSA: B-430 is CSA Accepted to C22.2 No.0.1595 Adhesive Labels Standard when printed with the Brady Series R6000 Halogen Free ribbon. See CSA file 041833 for specific details. CSA information can be accessed online at <https://www.csagroup.org/testing-certification/product-listing/>

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) | 0.002 inch (0.0508 mm) 0.001 inch (0.0254 mm) 0.003 inch (0.0762 mm) |
| Adhesion to: Stainless Steel | ASTM D 1000 20 minute dwell 24 hour dwell | 51 oz/inch (56 N/100 mm) 57 oz/inch (62 N/100 mm) |
| - Painted Enamel | 20 minutes dwell 24 hour dwell | 51 oz/inch (56 N/100 mm) 54 oz/inch (59 N/100 mm) |
| - Textured ABS | 20 minutes dwell 24 hour dwell | 10 oz/inch (10 N/100 mm) 10 oz/inch (10 N/100mm) |
| - Polypropylene | 20 minutes dwell 24 hour dwell | 36 oz/in (40 N/100 mm) 39 oz/in (42 N/100 mm) |
| - Polyester Powder Coated Paint | 20 minutes dwell 24 hour dwell | 32 oz/in (35 N/100 mm) 43 oz/in (47 N/100 mm) |
| Tack | ASTM D 2979 Polyken™ Probe Tack 0.5 second dwell | 26 oz (800 g) |
| Dielectric Strength | ASTM D 1000 | 8400 volts |

Performance properties tested on B-430 printed with the Brady Series R6000 Halogen Free and the Brady Series R6200 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 various temperatures | No visible effect to label at 100°C. Slight discoloration at 110°C; moderate discoloration at 145°C but label is still functional. |
| Low Service Temperature | 30 days at -70°C | No visible effect |
| Short Term High Service Temperature | 5 minutes at various Temperatures | No visible effect to label at 180°C. Slight discoloration and label shrinkage at 200°C; label is functional. Label becomes nonfunctional at 220°C due to label shrinkage. |
| Humidity Resistance | 30 days at 100°F (37°C) and 95% relative humidity. | 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 |
| Abrasion Resistance | Taber Abraser, CS-10 grinding wheels, 250 g/arm (Fed. STd. 191A, Method 5306) | Print legible after 100 cycles |

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

Samples were printed with the Brady Series R6000 Halogen Free and the Brady Series R6200 ribbons. Samples were laminated to aluminum panels and allowed to dwell 24 hours prior to testing. Testing was conducted at room temperature and consisted of 30 minute immersions in the specified test fluid. After immersion, the samples were removed from the test fluid and the printed image rubbed 10 times with a cotton swab saturated with the test fluid. The rating scale below shows the effect to the quality of the print for each sample.

| CHEMICAL REAGENT | SUBJECTIVE OBSERVATION OF VISUAL CHANGE | | | | |
|-------------------|---|--------------------------|----------|-------------|----------|
| | EFFECT TO LABEL STOCK | EFFECTS TO PRINTED IMAGE | | | |
| | | R6000 Halogen Free | | R6200 | |
| | | WITHOUT RUB | WITH RUB | WITHOUT RIB | WITH RUB |
| Acetone | Slight adhesive ooze | 1 | 5 | 1 | 5 |
| Toluene | Slight adhesive ooze | 1 | 5 | 1 | 5 |
| Isopropyl Alcohol | No visible effect | 1 | 1 | 1 | 1 |
| Mineral Spirits | No visible effect | 1 | 1 | 1 | 1 |
| Gasoline | Slight adhesive ooze | 1 | 1 | 1 | 1 |
| JP-8 Jet Fuel | Slight adhesive ooze | 1 | 1 | 1 | 1 |
| Brake Fluid DOT 3 | No visible effect | 1 | 4 | 1 | 4 |
| Skydrol® 500B-4 | Slight adhesive ooze | 1 | 5 | 2-3 | 5 |

| | | | | | |
|---------------------------------------|-------------------|---|---|---|---|
| SAE 20 WT Oil at 70°C | No visible effect | 1 | 1 | 1 | 1 |
| MIL 5606 Oil | No visible effect | 1 | 1 | 1 | 1 |
| Formula 409® Cleaner | No visible effect | 1 | 1 | 1 | 1 |
| Northwoods™ Buzz Saw Citrus Degreaser | No visible effect | 1 | 1 | 1 | 1 |
| Deionized Water | No visible effect | 1 | 1 | 1 | 1 |

Rating Scale:

- 1= no visible effect
- 2= slight smear or print removal, detectable but minimal smear
- 3= moderate smear or print removal (print still legible)
- 4= severe smear or print removal (print illegible or just barely legible)
- 5= complete print and/or topcoat removal
- NP= print removed prior to rub

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:

- BradyBondz™ is a trademark of Brady Worldwide, Inc.
- Formula 409® is a registered trademark of the Clorox Company
- Northwoods™ is a trademark of the Superior Chemical Corporation
- 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
- 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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