Technical Data Sheet

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

TDS No. B-430
Effective Date: 04/18/2019

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 on line at UL.com in the UL Product iQ area.

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	 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.

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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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