

BRADY B-428 THERMAL TRANSFER PRINTABLE METALLIZED POLYESTER LABEL STOCK

TDS No. B-428
Effective Date: 10/05/2022

Description:

GENERAL

Print Technology: Thermal Transfer
Material Type: Metallized Polyester
Finish: Matte, light gray appearance
Adhesive: Permanent Acrylic

APPLICATIONS

Designed for applications like rating and serial plates that utilize barcodes, alphanumerics, graphic symbols, and logos that require nameplate-like quality.

RECOMMENDED RIBBONS

Brady Series R4300

REGULATORY/AGENCY APPROVALS

UL: B-428 is a UL Recognized Component when printed with the Brady Series R4300 ribbon. See UL file MH17154 for specific details. UL information can be accessed online at UL.com in the UL Product iQ area.

CSA: B-428 is CSA Accepted to C22.2 No. 0.15-15 Adhesive Labels Standard when printed with the Brady Series R4300 Ribbon. See CSA Acceptance Record LS 41833 for specific details. CSA Information accessed on line at <https://www.csagroup.org/testing-certification/product-listing/>

DIN VDE 0472 Part 815: Brady B-428 meets the requirements of a halogen-free material per DIN VDE 0472 part 815. (Statement based on review of product construction and confirmatory halogen content test run at an independent test laboratory.)

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-428 is designed to withstand numerous solvents and variable temperatures when applied to various surfaces.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total (excluding liner)	0.0037 inch (0.097 mm) 0.0010 inch (0.025 mm) 0.0047 inch (0.122 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 24 hour dwell	44 oz/in (48 N/100 mm) 44 oz/in (48 N/100 mm)

Performance properties were tested on B-428 printed with the Brady Series R4300 ribbon. Printed samples of the B-428 were laminated to aluminum panels before exposure to the indicated environmental conditions. .

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Long Term High Service Temperature	30 days at various temperatures	No visible effect to label at 248°F (120°C), Slight discoloration at 293°F (145°C), Slight discoloration at 320°F (160°C)

Long Term Low Service Temperature	30 days at -40°F (-40°C)	No visible effect
Humidity Resistance	30 days at 100°F (37°C), 95% R.H.	No visible effect
UV Light Resistance	ASTM G155, Cycle 1 (No Spray) 30 days in Xenon Test Chamber	Very slight discoloration
Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weather-Ometer®	No visible effect
Salt Fog Resistance	ASTM B117 30 days in 5% salt fog	No visible effect

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Samples were printed with the Brady Series R4300 ribbon. Test was conducted at room temperature after a 24 hour dwell. Testing consisted of 5 cycles of 10 minute immersions in the specified chemical reagent followed by 30 minute recovery periods. After final immersion, samples rubbed 10 times with a cotton swab saturated with the test fluid.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE (R4300 RIBBON)		
	EFFECT TO LABEL STOCK	EFFECT TO PRINT	EFFECT TO PRINT WITH RUB
Methyl Ethyl Ketone	No visible effect	1	3
Toluene	No visible effect	1	3
Mineral Spirits	No visible effect	1	1
JP-8 Jet Fuel	No visible effect	1	1
SAE 20 WT Oil	No visible effect	1	1
SAE 20 WT Oil @ 70C	No visible effect	1	2
IPA	No visible effect	1	1
ASTM #3	No visible effect	1	1
Mil 5606 Oil	No visible effect	1	1
Skydrol® 500B	No visible effect	1	1
Super Agitene®	No visible effect	1	1
Deionized Water	No visible effect	1	1
3% Alconox® Detergent	No visible effect	1	1
10% Sulfuric Acid Solution	No visible effect	1	1
10% Sodium Hydroxide Solution	Slight topcoat removal at edges	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:

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 applications.

Trademarks:

Alconox® is a registered trademark of Alconox Co.

Skydrol® is a registered trademark of the Monsanto Company

Weather-Ometer® is a registered trademark of Atlas Material Testing Technology

Super Agitene® is a registered trademark of Graymills Corporation

ASTM: American Society for Testing and Materials (U.S.A.)

CSA: Canadian Standards Association

SAE: Society of Automotive Engineers (U.S.A.)

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.

Product compliance information is based upon information provided by suppliers of the raw materials used by Brady to manufacture this product or based on results of testing using recognized analytical methods performed by a third party, independent laboratory. As such, Brady makes no independent representations or warranties, express or implied, and assumes no liability in connection with the use of this information.

WARRANTY

Brady products are sold with the understanding that the buyers will test them in actual use and determine for themselves their adaptability to their intended uses. Brady warrants to the buyers that its products are free from defects in material and workmanship, but limits its obligation under this warranty to replacement of the product shown to Brady's satisfaction to have been defective at the time Brady sold it. This warranty does not extend to any persons obtaining the product from the buyers. This warranty is in lieu of any other warranty, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose, and of any other obligations or liability on Brady's part. Under no circumstances will Brady be liable for any loss, damage, expense, or consequential damages of any kind arising in connection with the use, or inability to use, Brady's products.

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