

BRADY B-435 THERMAL TRANSFER PRINTABLE GLOSS METALLIZED POLYESTER LABEL STOCK

TDS No. B-435
Effective Date: 06/27/2012

Description:

GENERAL

Print Technology: Thermal Transfer
Material Type: Metallized Polyester
Finish: Glossy
Adhesive: Permanent Acrylic

APPLICATIONS

Rating plate and general purpose labeling

RECOMMENDED RIBBONS

Brady Series R4900
Brady Series R6000
Brady Series R6000 Halogen Free (Previously known as R6000HF)

REGULATORY/AGENCY APPROVALS

UL: B-435 is a UL Recognized Component when printed with the Brady R4900, R6000 and R6000 Halogen Free Series ribbons. See UL file MH17154 for specific details. UL information can be accessed online at UL.com. Search in *Certifications* area.

CSA: B-435 is a CSA Accepted material when printed with the Brady R6000 Series ribbon. See CSA Acceptance Record LS 41833 for specific details. CSA information can be accessed online at directories.csa-international.org.

Brady B-435 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total	0.0020 inch (0.0508 mm) 0.0007 inch (0.0165 mm) 0.0027 inch (0.0673 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 24 hour dwell	66 oz/in (72 N/100 mm) 84 oz/in (92 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 1 second dwell	17 oz (472 g)
Drop Shear	PSTC-7 (except use 1/2" x 1" sample)	40 hours
Tensile Strength and Elongation	ASTM D 1000 -Machine Direction -Cross Direction	40 lbs/in (698 N/100 mm), 118% 49 lbs/in (858 N/100 mm), 66%

Performance properties tested on B-435 printed with Series R4900, R6000 and R6000 Halogen Free ribbons. Samples laminated to aluminum panels. All samples allowed to dwell 24 hours prior to testing. Unless noted, results are the same for all three ribbons.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Long Term High Service Temperature	30 days at 194°F (90°C)	No visible effect
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	30 days in UV Sunlighter™ 100	Slight yellowing of label. No visible effect to print.
Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer	Topcoat becomes chalky. No visible effect to print.
Abrasion Resistance	Taber Abraser, CS-10 grinding wheels, 500 g/arm (Fed. Std. 191A, Method 5306)	Print legible up to: R4900 50 cycles R6000 115 cycles R6000Halogen Free 100 cycles

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Samples printed with Series R4900, R6000 and R6000 Halogen Free ribbons. Labels printed using a 3:1 barcode ratio with a 5 mil narrow X dimension bar. Test was conducted at room temperature after 24 hour dwell. Testing consisted of 5 cycles of 10 minute immersions in the specified chemical reagent followed by 30 minute recovery period. Samples rubbed 10 times with cotton swab immersed in test fluid after final immersion.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE				
	EFFECT TO LABEL STOCK	PRINTING IMMERSION ONLY*	R4900 PRINT WITH COTTON SWAB RUB	R6000 PRINT WITH COTTON SWAB RUB	R6000 Halogen Free PRINT WITH COTTON SWAB RUB
Methyl Ethyl Ketone	NVE**	NVE	Print Removed	Print Removed	Print Removed
1,1,1-Trichloroethane	NVE	NVE	Print Removed	Print Removed	Obsolete
Toluene	NVE	NVE	Print Removed	Print Removed	Print Removed
Freon® TMS	NVE	NVE	Print Removed	Print Removed	Obsolete
Isopropyl Alcohol	NVE	NVE	NVE	NVE	NVE
Mineral Spirits	NVE	NVE	NVE	NVE	NVE
JP-4 Jet Fuel	NVE	NVE	NVE	NVE	NVE
ASTM #3 Oil	NVE	NVE	NVE	NVE	NVE
Mil 5606 Oil	NVE	NVE	NVE	NVE	NVE
Skydrol® 500B-4	NVE	NVE	Print Removed	Print Removed	Print Removed
Super Agitene®	NVE	NVE	NVE	NVE	NVE
BIOACT® EC-7R™	NVE	NVE	NVE	NVE	Not Tested
Deionized Water	NVE	NVE	NVE	NVE	NVE
3% Alconox® Detergent	NVE	NVE	NVE	NVE	NVE
10% Sodium Hydroxide Solution	NVE	NVE	NVE	NVE	NVE
10% Sulfuric Acid Solution	NVE	NVE	NVE	NVE	NVE

* Results same for R4900, R6000 and R6000 Halogen Free ribbons

** NVE= No Visible Effect

Product testing, customer feedback, and history of similar products, support a customer performance expectation of at least **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 70 degrees F (21°C) and 50% RH*. We are confident that our product will perform well beyond this time frame. However, it remains the responsibility of the user to assess the risk of using such product. We encourage customers to develop functional testing protocols that will qualify a product's fitness for use, in their actual applications.

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

CSA: Canadian Standards Association

PSTC: Pressure Sensitive Tape Council (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

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