ALTEC
INDUSTRIAL IDENTIFICATION

Technical datasheet

B434

Date
23-07-2018

THERMAL TRANSFER PRINTABLE GLOSS METALLIZED POLYESTER

Description

Thermal transfer printable gloss metallized polyester. B434 is designed to withstand numerous solvents while maintaining excellent image quality. Used for rating plates and general purpose labeling on textured surfaces.

Material	Metallized polyester	**Temperature**	-40°C / 90°C
Finishing	Glossy	**Certificates**	UL / CSA / RoHS
Color	Silver (metal-look)	**Print technology**	Thermal transfer
Adhesive	Permanent acrylic	**Ribbon(s)**	AR-10

Physical data / Test results

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 - Substrate - Adhesive - Total	 0.002 inch (0.051 mm) 0.002 inch (0.051 mm) 0.004 inch (0.102 mm)
Adhestion to: - Stainless Steel - Textured ABS - Polypropylene	ASTM D 1000 20 minute dwell 24 hour dwell 20 minute dwell 24 hour dwell 20 minute dwell 24 hour dwell	 86 oz/in (94 N/100 mm) 97oz/in (106 N/100 mm) 14 oz/in (15 N/100 mm) 18 oz/in (20 N/100 mm) 67 oz/in (73 N/100 mm) 77 oz/in (84 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 1 second dwell	 47 oz (1333 g)
Tensile Strenght and Elongation	ASTM D 1000 - Machine Direction	 42 lbs/in (736 N/100 mm), 118%

Test results
The following testing was performed on B434 samples. 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	EFFECT TO TAPE	EFFECT TO PRINT
Long Term High Service Temperature	30 days at 194°F (90°C)	No visible effect	No visible effect
Long Term Low Service Temperature	30 days at -40°F (-40°C	No visible effect	No visible effect
Humidity Resistance	30 days at 100°F (37°C), 95% R.H.	No visible effect	No visible effect
UV Light Resistance	30 days in UV Sunlighter™ 100	Slight yellowing of label	No visible effect

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Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weatheromete	Topcoat becomes chalky	No visible effect
Abrasion Resistance	Taber Abraser, CS-10 grinding wheels, 500 g/arm (Fed. Std. 191A, Method 5306)	No visible effect	Print legible up to: - R4800 50 cycles - R4900 40 cycles - R6000 135 cycles

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 a cotton swab immersed in test fluid after final immersion.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE				
	LABEL STOCK	PRINTING IMMERSION ONLY[1]	R4900 PRINT WITH COTTON SWAB RUB	R6000 PRINT WITH COTTON SWAB RUB	R6000HF PRINT WITH COTTON SWAB RUB
Methyl Ethyl Ketone	Slight adhesive ooze	Print Removed	Print Removed	Print Removed	Print Removed
1,1,1-Trichloroethane	Slight adhesive ooze	NVE[2]	Print Removed	Slight Removal	Obsolete
Toluene	Slight adhesive ooze	NVE	Print Removed	Print Removed	Print Removed
Isopropyl Alcohol	NVE	NVE	NVE	NVE	NVE
Mineral Spirits	NVE	NVE	NVE	NVE	NVE
JP-4 Jet Fuel	NVE	NVE	NVE	NVE	NVE
ASTM Reference Fuel B	NVE	NVE	NVE	NVE	Not Tested
SAE 20 WT Oil	NVE	NVE	NVE	NVE	NVE
ASTM #3 Oil	NVE	NVE	NVE	NVE	NVE
Mil 5606 Oil	NVE	NVE	NVE	NVE	NVE
Skydrol® 500B-4	Slight adhesive ooze	Print Removed	Print Removed	Print Removed	Print Removed
Super Agitene®	NVE	NVE	NVE	NVE	NVE
BIOACT® EC-7R™	NVE	NVE	NVE	NVE	NVE
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

[1]Results same for different ribbons
[2]NVE=No Visible Effect

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Storage

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 80 degrees F (27°C)and 60% 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.

Certificates

UL
B-434 is a UL Recognized Component when printed with the Brady R4900 and R6000 Series ribbons. See UL file MH17154 for specific details. UL information can be accessed online at UL.com. Search in Certifications area.

CSA
B-434 is a CSA Accepted material when printed with the Brady R4900 and R6000 Series ribbon. See CSA Acceptance Record LS 41833 for specific details. CSA information can be accessed online at directories.csa-international.org.

RoHS
Brady B-434 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

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 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 to manufacture this product or based on results of testing using recognized analytical methods performed by a third party, independent laboratory. As such, Altec makes no independent representations or warranties, express or implied, and assumes no liability in connection with the use of this information.

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