

**BRADY B-407 TRANSLUCENT MATTE POLYOLEFIN LABEL STOCK**

TDS No. B-407

Effective Date: 10/03/2017

**Description:**

**GENERAL**

**Print Technology:** Thermal transfer

**Materials Type:** Translucent polyolefin

**Finish:** Matte

**Adhesive:** Permanent acrylic

**Liner:** Polypropylene coated natural paper release liner

**APPLICATIONS**

B-407 is recommended for general purpose label applications that require a clear thermal transfer printable material. B-407 can also be used as a thermal transfer printable overlaminates. B-407 is not recommended for outdoor use.

**RECOMMENDED RIBBONS**

Brady series R4900 and R6200 black

Brady series R4400 white

**REGULATORY/AGENCY APPROVALS**

Based on the results of testing using recognized analytical methods performed by a third party, independent laboratory, B-407 is RoHS compliant to the current TAG MCV proposal to the EU Commission Directive 2002/95/(RoHS) for cadmium (<100 ppm), lead (<1000 ppm), hexavalent chromium (<1000 ppm), mercury (<1000 ppm), polybrominated biphenyls (PBBs < 1000 ppm), and polybrominated diphenyl ethers (PBDE's <1000 ppm).

**Details:**

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total	0.0036 inch (0.091 mm) 0.0009 inch (0.023 mm) 0.0045 inch (0.114 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 24 hour dwell	36 oz/in (40 N/100 mm) 44 oz/in (47 N/100 mm)
-Smooth ABS	20 minute dwell 24 hour dwell	36 oz/in (40 N/100 mm) 39 oz/in (43 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	29 oz/in (32 N/100 mm) 33 oz/in (36 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 1 second dwell	24 oz (669 g)

Performance properties tested on B-407 printed with Series R4900 and R6200 ribbons and a BradyPrinter™ THT Model 300X thermal transfer printer. Printed samples of B-407 were laminated to aluminum and allowed to dwell 24 hours before exposure to the indicated environmental conditions.

PERFORMANCE PROPERTIES	TEST METHOD	TYPICAL RESULTS
Short Term High Service Temperature	5 minutes at 212°F (100°C)	No visible effect to label at 100°C. Label shrinkage and adhesive blistering at temperatures higher than 100°C.
Long Term High Service Temperature	30 days at 194°F (90°C)	No visible effect to label at 80°C. Adhesive blistering observed at 90°C.
Low Service Temperature	30 days at -94°F (70°C)	No visible effect
Humidity Resistance	30 days at 100°F (37°C) and 95% R.H.	No visible effect
Weatherability*	ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer	Label became severely cracked and brittle.

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, 500 g/arm (Fed. Std. 191A, Method 5306)	Print still legible at 150 cycles with the R4900 and R6200 ribbons.

\*B-407 is not recommended for long-term outdoor use.

<b>PERFORMANCE PROPERTY</b>	<b>CHEMICAL RESISTANCE</b>
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Samples printed with Series R4900 and R6200 ribbons. Samples laminated to aluminum panels and allowed to dwell 24 hours prior to testing. Test was conducted at room temperature except where noted. Testing consisted of 5 cycles of 10 minute immersions in the specified test fluid followed by a 30 minute recovery period. After final immersion, samples rubbed 10 times with cotton swab saturated with test fluid.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	LABEL STOCK SUBSTRATE/ ADHESIVE	R4900	R6200
Methyl Ethyl Ketone	No visible effect	No visible effect w/o rub, complete print removal with rub	Slight print fade w/o rub, complete print removal with rub
Isopropyl Alcohol	No visible effect	No visible effect with or without rub	No visible effect w/o rub, moderate print removal with rub
Mineral Spirits	No visible effect	No visible effect with or without rub	No visible effect with or without rub
Brake Fluid	No visible effect	No visible effect w/o rub, complete print removal with rub	Moderate print removal w/o rub, complete print removal with rub
SAE 20 WT Oil @70°C	No visible effect	No visible effect with or without rub	No visible effect with or without rub
Mil 5606 Oil	Label stained red	No visible effect with or without rub	No visible effect with or without rub
Gasoline	Slight adhesive ooze	No visible effect w/o rub, moderate print removal with rub	No visible effect with or without rub
Skydrol® 500B-4	No visible effect	Slight print removal w/o rub, complete print removal with rub	Slight print fade w/o rub, complete print removal with rub
Glass Cleaner	No visible effect	No visible effect with or without rub	No visible effect with or without rub
Deionized Water	No visible effect	No visible effect with or without rub	No visible effect with or without rub
3% Alconox® Detergent	No visible effect	No visible effect with or without rub	No visible effect with or without rub
10% Sodium Hydroxide Solution	No visible effect	No visible effect with or without rub	Slight print fade with or without rub
10% Sulfuric Acid Solution	No visible effect	No visible effect with or without rub	No visible effect with or without rub
Northwoods™ Buzz Saw Degreaser	No visible effect	No visible effect with or without rub	Slight print removal w/o rub, complete print removal with 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:**

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 BradyPrinter™ is a trademark of Brady Worldwide, Inc.  
 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  
 ASTM: American Society for Testing and Materials (U.S.A.)  
 S. I.: International System of Units  
 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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