

BRADY B-7566 THERMAL TRANSFER PRINTABLE TAMPER-EVIDENT CLEAR POLYESTER LABEL STOCK

TDS No. B-7566
Effective Date: 02-May-2012

Description:

GENERAL

Print Technology: Thermal Transfer

Material Type: Polyester

Finish: Gloss Clear

Adhesive: Tamper Indicating Acrylic

APPLICATIONS

Material that requires high performance and evidence of label removal.

RECOMMENDED RIBBONS

Brady series R6000, R6000HF, R6000 Halogen Free and R4400 colored (red, blue, and green)

REGULATORY/AGENCY APPROVALS

Brady B-7566 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

SPECIAL FEATURES

B-7566 is designed to leave a "VOID" footprint when the label is removed. In addition, a "VOID" pattern will appear on the top surface of the label in order to prevent it from being reused. Recommended 24 hour room temperature dwell before removal for full tamper evident performance. The adhesive nature of this product does not allow for repositioning and requires minimal handling in order to prevent prematurely exposed VOID pattern.

Details:

| PHYSICAL PROPERTIES | TEST METHODS | AVERAGE RESULTS |
|---------------------------------|---|--|
| Thickness | ASTM D 1000 -Substrate -Adhesive -Total | 0.0014 inch (0.036 mm) 0.0011 inch (0.028 mm) 0.0025 inch (0.064 mm) |
| Adhesion to: | ASTM D 1000 | |
| -Stainless Steel | 30 minute dwell | 66 oz/in (72 N/100 mm) |
| -Aluminum | 30 minute dwell | 36 oz/in (39 N/100 mm) |
| -Glass | 30 minute dwell | 61 oz/in (67 N/100 mm) |
| -Smooth ABS | 30 minute dwell | 60 oz/in (65 N/100 mm) |
| - Textured ABS | 30 minute dwell | 19 oz/in (21 N/100 mm) |
| - Polypropylene | 30 minute dwell | 64 oz/in (70 N/100 mm) |
| - Painted enamel | 30 minute dwell | 59 oz/in (61 N/100 mm) |
| - Powder coated enamel | 30 minute dwell | 27 oz/in (29 N/100 mm) |
| Drop Shear | PSTC-7 | 19 hours* |
| Tensile Strength and Elongation | ASTM D 1000 -Machine Direction | 33 lbs/in (5.82 N/100 mm), 196% |
| Application Temperature | Lowest application temperature to stainless steel | 39°F (4°C) |

Tamper evident adhesive performance properties were tested on B-7566 laminated to the indicated surfaces, exposed to the indicated environments and removed from the environments prior to testing. The label was removed at a 135° angle with a peel rate of 90 in/min and the remaining VOID adhesive pattern on each surface was observed. Upon label removal, tamper evidency may not always be apparent on the surface to which the label was adhered. In most cases, the label is not reusable as the VOID pattern will be visible on the top surface of the label.

| SUBJECTIVE OBSERVATION OF ADHESIVE PERFORMANCE (PERCENTAGE OF VOID PATTERN RETAINED) | | | | |
|---|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|
| SURFACE TYPE | 24 hours at 72°F (22°C) | 30 days at 104°F (40°C) | 30 days at -40°F (-40°C) | 30 days at -94°F (-70°C) |
| Laminated to: | | | | |
| -Stainless Steel | 50%-75% | 85%-100% | 30%-75% | 10%-25% |
| -Aluminum | 15%-30% | 5%-20% | 40%-75% | 0%-15% |
| -Glass | 40%-50% | 40%-65% | 40%-50% | 0%-15% |
| -Smooth ABS | 60%-65% | 85%-100% | 85%-100% | 80%-95% |
| - Textured ABS | 20-30% | 60%-80% | 30%-55% | 0%-15% |
| - Polypropylene | 60%-75% | 25%-40% | 10%-20% | 30%-45% |
| - Painted enamel | 50%-60% | 80%-100% | 50%-80% | 10%-25% |
| - Powder coated metal | 75%-100% | 85%-100% | 50%-100% | 0%-15% |

Performance properties tested on B-7566 samples printed using Series R6000 and R6000HF thermal transfer ribbon. The labels were printed with alphanumerics and 3:1 ratio with 6 mil minimum X dimension barcode. Printed samples of B-7566 were laminated to aluminum before exposure to the indicated environmental condition.

| PERFORMANCE PROPERTIES | TEST METHODS | TYPICAL RESULTS |
|------------------------------------|--|----------------------------|
| Long Term High Service Temperature | 30 days at 175°F (80°C) | No visible effect |
| Long Term Low Service Temperature | 30 days at -94°F (-70°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 | No visible effect |
| Weatherability | ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer | No visible effect to print |

| PERFORMANCE PROPERTY | CHEMICAL RESISTANCE |
|-----------------------------|----------------------------|
|-----------------------------|----------------------------|

Samples printed with Brady Series R6000, R6000 Halogen Free and R6000HF ribbons and then laminated to aluminum panels. 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 periods. 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 | R6000 / R6000 Halogen Free EFFECTS OF IMMERSION | R6000 / R6000 Halogen Free COTTON SWAB RUBS | R6000HF EFFECTS OF IMMERSION | R6000HF COTTON SWAB RUBS |
| Methyl Ethyl Ketone | No visible effect | Moderate smear or print removal (print still legible) | Complete print and/or topcoat removal | Severe print and/or topcoat removal | Complete print and/or topcoat removal |
| Toluene | No visible effect | Severe smear or print removal (print illegible or just barely legible) | Complete print and/or topcoat removal | No visible effect | Complete print and/or topcoat removal |
| Isopropyl Alcohol | No visible effect | No visible effect | No visible effect | No visible effect | No visible effect |

| | | | | | |
|-------------------------------|-------------------|---|--|-------------------------------------|---------------------------------------|
| Mineral Spirits | No visible effect | No visible effect | No visible effect | No visible effect | No visible effect |
| JP-8 Jet Fuel | No visible effect | No visible effect | No visible effect | No visible effect | No visible effect |
| Gasoline | No visible effect | No visible effect | Complete print and/or topcoat removal | No visible effect | No visible effect |
| SAE 20 WT Oil | No visible effect | No visible effect | No visible effect | No visible effect | No visible effect |
| Mil 5606 Oil | No visible effect | No visible effect | No visible effect | No visible effect | No visible effect |
| Skydrol® 500B-4 | No visible effect | Complete print and/or topcoat removal | Complete print and/or topcoat removal | Severe print and/or topcoat removal | Complete print and/or topcoat removal |
| Deionized Water | No visible effect | No visible effect | No visible effect | No visible effect | No visible effect |
| 10% Sodium Hydroxide Solution | No visible effect | Moderate smear or print removal (print still legible) | Severe smear or print removal (print illegible or just barely legible) | No visible effect | No visible effect |
| 10% Sulfuric Acid | No visible effect | No visible effect | No visible effect | No visible effect | No visible effect |
| Northwoods™ Buzz Saw Cleaner | No visible effect | No visible effect | No visible effect | No visible effect | No visible effect |
| Formula 409® | No visible effect | No visible effect | No visible effect | No visible effect | No visible effect |
| Acetone | No visible effect | No visible effect | Complete print and/or topcoat removal | Severe print and/or topcoat removal | Complete print and/or topcoat removal |
| Brake Fluid | No visible effect | No visible effect | Complete print and/or topcoat removal | No visible effect | Severe smear/print removal |

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. 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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 Northwoods™ is a trademark of the Superior Chemical Corporation
 Skydrol® is a registered trademark of the Monsanto Company
 Sunlighter™ is a trademark of the Test Lab Apparatus Company
 ANSI: American National Standards Institute (U.S.A.)
 ASTM: American Society for Testing and Materials (U.S.A.)
 PSTC: Pressure Sensitive Tape Council (U.S.A.)
 SAE: Society of Automotive Engineers (U.S.A.)

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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