

BRADY B-7531 THERMAL TRANSFER PRINTABLE METALLIZED POLYESTER LABEL STOCK

TDS No. B-7531
Effective Date: 09/27/2011

Description:

GENERAL

Brady B-7531 is a metallized polyester film with a permanent acrylic based pressure sensitive adhesive and a thermal transfer printable topcoat.

APPLICATIONS

Brady B-7531 is designed for general identification purposes. B-7531 gives good printing quality for barcodes, alphanumerics, graphic symbols and logos.

RECOMMENDED RIBBONS

Recommended ribbons are Brady Series R-7950, R-7960 and R-7961 Thermal Transfer ribbons for the Thermal Transfer Printers and R-4310 for the TLS2200™ thermal transfer printer.

SPECIAL FEATURES

Brady B-7531 meets the requirements of a halogen-free material per DIN VDE 0472 part 815.

AGENCY APPROVALS

Brady B-7531 is a UL Recognized component label when printed with Brady Series R-7950 and R-7960, and CSA accepted when printed with Brady Series R-7950, R-7960 and R-7961. See UL file MH 17388 and CSA record 28736 for specific details.

ROHS Environmental Compliance

Brady B-7531 is RoHS compliant using EU Directive 2002/95/EC.

Details:

| PHYSICAL PROPERTIES | TEST METHOD | AVERAGE RESULTS |
|-----------------------|---|--|
| Thickness | ASTM D 1000 - Substrate - Adhesive - Total | 0.065 mm (0.0025 inch) 0.015 mm (0.0006 inch) 0.080 mm (0.0031 inch) |
| Tensile strength | PSTC-31 | 275 N/100 mm (234 oz/inch) |
| Elongation | PSTC-31 | 60 % |
| Drop Shear | PSTC-7 | 9 hours |
| Tack | ASTM D 2979 Polyken™ Probe Tack (1 sec dwell, 1 cm/sec separation) | 250 g (9 oz) |
| Adhesion to: | ASTM D 1000 | |
| - Stainless steel | 20 min dwell 24 hours dwell | 50 N/100 mm (46 oz/inch) 70 N/100 mm (64 oz/inch) |
| - Polypropylene | 20 min dwell 24 hours dwell | 24 N/100 mm (22 oz/inch) 30 N/100 mm (27 oz/inch) |
| - Textured ABS | 20 min dwell 24 hours dwell | 9 N/100 mm (8 oz/inch) 23 N/100 mm (21 oz/inch) |
| Abrasion Resistance * | Method 5306 US Fed Std. 191A 100 cycles R-7950 (CS10 + 250 g) (CS10 + 500 g) R-7960 (CS10 + 250 g) (CS10 + 500 g) R-7961 (CS10 + 250 g) (CS10 + 500 g) | Moderate Fading Severe Fading Moderate Fading Severe Fading Slight Fading Slight Fading |

* All samples are still legible after abrasion testing

Performance properties tested on B-7531 printed with Series R-7950, R-7960 and R-7961 using the BradyPrinter™ THT Model 300X thermal transfer printer. Printed samples were laminated to aluminium and allowed to dwell 24 hours before exposure to the indicated environments. Unless noted, results are the same for both ribbons.

| PERFORMANCE PROPERTIES | TEST METHOD | OBSERVATION OF VISUAL CHANGE |
|-------------------------|--|------------------------------|
| Application Temperature | Lowest application temperature to stainless steel | 4° C |
| Service Temperature | Minimum Temperature Maximum Temperature (24h) | -20° C 130° C |
| Thermal Shock | 8 hours max. temp and 16 hours at min. temperature | No effect |
| Humidity Resistance | 30 days in humidity chamber Temperature = 38° C Humidity = 95% | No Visible effect |
| U.V. Resistance | 30 days in UV lightchamber | No Visible effect |
| Weatherability | ASTM G 53 (30 days QUV) | Topcoat powdering |

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

Samples printed with Series R-7950, R-7960 and R-7961 using a BradyPrinter™ Model 300X thermal transfer printer. Samples laminated to aluminium panels and allowed to dwell 24 hours prior to testing. Test conducted at room temperature. 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 | | | |
|------------------------|---|-------------|------------|------------|
| | EFFECT TO LABEL STOCK | R-7950 | R-7960 | R-7961 |
| Isopropanol | N.V.E. | M.F. | N.V.E. | SL.F. |
| Iso-octane | N.V.E. | Light smear | N.V.E. | N.V.E. |
| n-Hexane | N.V.E. | Light smear | N.V.E. | N.V.E. |
| Toluene | N.V.E. | Print gone | Print gone | Print gone |
| 1,1,1 Trichloroethane | N.V.E. | Print gone | Print gone | Print gone |
| Water | N.V.E. | N.V.E. | N.V.E. | N.V.E. |
| NaCl (10%) | N.V.E. | N.V.E. | N.V.E. | N.V.E. |
| Acetone | M.F. | Print gone | Print gone | Print gone |
| MEK | M.F. | Print gone | Print gone | Print gone |
| Sulphuric acid (10%) | N.V.E. | N.V.E. | N.V.E. | N.V.E. |
| Alcohol mix* | N.V.E. | N.V.E. | N.V.E. | N.V.E. |
| Sodium Hydroxide (10%) | N.V.E. | N.V.E. | N.V.E. | N.V.E. |
| Skydrol® 500B - 4 | M.F. | Print gone | Print gone | Print gone |
| Mineral oil | N.V.E. | N.V.E. | N.V.E. | N.V.E. |
| Diesel | N.V.E. | N.V.E. | N.V.E. | N.V.E. |

N.V.E.: No visible effect

SL.F.: Slight fading

M.F.: Moderate fading

* 50% Ethyl alcohol, 30% Methyl Alcohol, 20% Distilled water

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°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.

Trademarks:

BradyPrinter™ is a trademark of Brady Worldwide, Inc.
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.)
CSA: Canadian Standards Association
Fed. Spec.: United States Federal Specification (U.S.A.)
PSTC: Pressure Sensitive Tape Council (U.S.A.)
UL: Underwriters Laboratories Inc. (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.

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.

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