

Technical Data Sheet

BRADY B-7593 ADHESIVE-TAPED POLYESTER

TDS No. B-7593

Effective Date: 19/05/2004

Description:

GENERAL

Brady B-7593 is a glossy thermal transfer printable polyester tag based on a double sided adhesive tape with a compressible foam carrier and a permanent acrylic adhesive.

APPLICATIONS

Brady B-7593 is supplied roll form formatted for thermal transfer printing on the TLS2200TM Thermal Labeling System.

Brady B-7593 is available in white, black, yellow, metallized, red and green.

RECOMMENDED RIBBONS

The TLS2200TM printer requires the Brady series R-6010 high performance ribbon.

SPECIAL FEATURES

B-7593 is supplied in a custom width of 27mm and four heights. The available heights are 8mm, 12.5mm, 15mm and 18mm. Available lengths include 15mm and 30mm.

B-7593 as special has a width of 30mm, a total height of 40mm, a printable zone of 10mm at the top and a hole with a diameter of 24.5mm.

ROHS Environmental Compliance

Brady B-7593 is RoHS compliant using EU Directive 2002/95/EC

Details:

| PHYSICAL PROPERTIES | TEST METHODS | AVERAGE RESULTS |
|------------------------|--------------------------------------|--------------------------------|
| Thickness | ASTM D 1000 | |
| | - Substrate | 0.200 mm (0.0079 inch) |
| | - Foam tape | 0.450 mm (0.0177 inch) |
| | - Total | 0.650 mm (0.0256 inch) |
| Adhesion to: | ASTM D 1000 | |
| - Stainless Steel | 20 minutes dwell | 142 N/100mm (130 oz/inch) |
| | 24 hour dwell | > 200 N/100 mm (> 200 oz/inch) |
| - Smooth ABS | 20 minutes dwell | 96 N/100mm (87,5 oz/inch) |
| | 24 hour dwell | 147 N/100 mm (134 oz/inch) |
| - Powdercoated surface | 20 minutes dwell | 120 N/100mm (109 oz/inch) |
| | 24 hour dwell | 182 N/100 mm (166 oz/inch) |
| - Polyethylene | 20 minutes dwell | 35 N/100mm (32 oz/inch) |
| | 24 hour dwell | 98 N/100 mm (89,5 oz/inch) |
| Drop Shear | PSTC-7 (except use 1/2" x 1" sample) | 35 hours |
| Tack | ASTM D2979 | 468,5 g |
| | Polyken™ Probe Tack | |
| | (1 s dwell, 1 cm/s separation) | |

| PERFORMANCE PROPERTIES | TEST METHODS | TYPICAL RESULTS White B-7593/R-6010 | TYPICAL RESULTS Black B-7593/R-4410W | TYPICAL RESULTS Metallized B-7593/R-6010 |
|-----------------------------|--------------------------------|--|---|--|
| High Service Temperature | 1000 hours at 100°C (212°F) | No visual effect | No visual effect | No visual effect |

| Low Service Temperature | 1000 hours at -40°C (-40°F) | No visual effect | No visual effect | No visual effect |
|-------------------------|--|--|---|---|
| Humidity Resistance | 1000 hours at 37°C (100°F), 95% R.H. | No visual effect | No visual effect | No visual effect |
| UV Light Resistance | 1000 hours in UV light chamber | No visual effect | No visual effect | No visual effect |
| Weatherability | 1000 hours in QUV (ASTM G-53) | No visual effect | No visual effect | No visual effect |
| Abrasion Resistance | Method 5306 US Federal test 191A CS 10 + 500 g/arm | Number of cycles until print is illegible 175 cycles | Number of cycles until print is illegible 75 cycles | Numbers of cycles until print is illegible 175 cycles |

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

Samples printed with the R-6010 ribbon and dwelled 24 hours prior to test. 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.

| White B-7593 / R-6010 | | |
|-----------------------------|--|--|
| CHEMICAL REAGENT | APPEARANCE OF THE PRINTING BEFORE RUBBING | APPEARANCE OF THE PRINTING AFTER RUBBING |
| Isopropyl alcohol | No visible effect | No visible effect |
| Methyl ethyl ketone | Print gone | Print gone |
| Alcohol Mix* | No visible effect | No visible effect |
| Gasoline | No visible effect | Print gone |
| Diesel | No visible effect | No visible effect |
| Skydrol® 500B-4 | No visible effect | Print gone |
| Mil 5606 Oil | No visible effect | No visible effect |
| 1,1,1-Trichloroethane | No visible effect | Print gone |
| 5% sodium hydroxide | No visible effect | No visible effect |
| 10% Sulphuric Acid Solution | No visible effect | No visible effect |
| Deionized Water | No visible effect | No visible effect |
| 10% Salt Water Solution | No visible effect | No visible e ffect |
| n-hexane | No visible effect | No visible effect |
| Iso-octane | No visible effect | No visible effect |
| Ethanol | No visible effect | No visible effect |
| ASTM#3 oil | No visible effect | No visible effect |
| Acetone | No visible effect | Print gone |

^{*} Alcohol Mix is 50% ethanol, 30% methanol, and 20% water by volume.

| Black B-7593 / R-4410W | | | |
|-----------------------------|--|--|--|
| CHEMICAL REAGENT | APPEARANCE OF THE PRINTING BEFORE RUBBING | APPEARANCE OF THE PRINTING AFTER RUBBING | |
| Isopropyl alcohol | No visible effect | Print gone | |
| Methyl ethyl ketone | Print gone | Print gone | |
| Alcohol Mix* | No visible effect | No visible effect | |
| Gasoline | No visible effect | Print gone | |
| Diesel | No visible effect | No visible effect | |
| Skydrol® 500B-4 | Print gone | Print gone | |
| Mil 5606 Oil | No visible effect | No visible effect | |
| 1,1,1-Trichloroethane | No visible effect | Print gone | |
| 5% sodium hydroxide | No visible effect | No visible effect | |
| 10% Sulphuric Acid Solution | No visible effect | No visible effect | |
| Deionized Water | No visible effect | No visible effect | |
| 10% Salt Water Solution | No visible effect | No visible effect | |
| n-hexane | No visible effect | No visible effect | |
| Iso-octane | No visible effect | No visible effect | |
| Ethanol | No visible effect | Severe fading | |

| ASTM#3 oil | No visible effect | Severe fading |
|------------|-------------------|---------------|
| Acetone | Print gone | Print gone |

^{*} Alcohol Mix is 50% ethanol, 30% methanol, and 20% water by volume.

Product testing and history of similar products, support a customer performance expectation of at least *two years from the data of receipt* for this product as long as this product is stored in its original packaging in an environment below 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 application.

Trademarks:

TLS2200® is a registered 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.) S. I.: International System of 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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