

# **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 TLS2200<sup>TM</sup> Thermal Labeling System.

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

## **RECOMMENDED RIBBONS**

The TLS2200<sup>TM</sup> 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

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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
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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	

<sup>\*</sup> 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	

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

<sup>\*</sup> 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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