

# **BRADY B-7593 DURABLE POLYESTER NAMEPLATE**

TDS No. B-7593

Effective Date: 05/29/2015

### **Description:**

# **GENERAL**

Print Technology: Thermal transfer

Material: Polyester Finish: Glossy

Colours: White, yellow, green, red, silver and black

Adhesive: A double sided adhesive tape with a compressible foam carrier and a permanent acrylic adhesive

#### **APPLICATIONS**

B-7593 durable polyester nameplate labels are designed for patch panel identification in identifying external push-buttons, switches, and internal connection points. B-7593 is also used as rating and serial plates using alphanumerics that require name plate quality

# **RECOMMENDED RIBBONS**

Brady series R-6000

Brady series R-6000HF (halogen-free)

Brady series R-4400 (colors - red, blue, green and white)

#### **SPECIAL FEATURES**

B-7593 is thermal transfer printable using the Brady benchtop systems and the Brady portable TLS2200<sup>TM</sup> and BMP<sup>TM</sup>71 thermal labeling systems.

## **ROHS Environmental Compliance**

Brady B-7593 is RoHS compliant to RoHS directive 2011/65/EU

### 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                     | 35 N/100 mm (32 oz/inch)       |
|                        | 24 hour dwell                        | 98 N/100 mm (90 oz/inch)       |
| - Smooth ABS           | 20 minutes dwell                     | 96 N/100mm (88 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)     |
| <br> - Polyethylene    | 20 minutes dwell                     | 142 N/100mm ( 130 oz/inch)     |
|                        | 24 hour dwell                        | > 200 N/100 mm (> 200 oz/inch) |
| Drop Shear             | PSTC-7 (except use 1/2" x 1" sample) | 35 hours                       |
| Tack                   | ASTM D2979                           | 468 g                          |
|                        | Polyken™ Probe Tack                  |                                |
|                        | (1 s dwell, 1 cm/s separation)       |                                |

| PERFORMANCE<br>PROPERTIES   | TEST METHODS                   | TYPICAL RESULTS<br>White B-7593/R-6000 | TYPICAL RESULTS<br>Black B-7593/R-4410W | TYPICAL RESULTS<br>Metallized B-7593/R-<br>6000 |
|-----------------------------|--------------------------------|--|---|---|
| High Service<br>Temperature | 1000 hours at 100°C<br>(212°F) | No visual effect                       | No visual effect                        | No visual effect                                |
| Low Service                 | 1000 hours at -40°C            | No visual effect                       | No visual effect                        | No visual effect                                |

| Temperature         | (-40°F)  |  |   |   |
|---------------------|--|--|---|---|
| Humidity Resistance | 1000 hours at 37°C<br>(100°F), 95% R.H.                  | No visual effect   | No visual effect  | No visual effect                                      |
| UV Light Resistance | 1000 hours in Q-Sun<br>Xe-1 test chamber                 | No visual effect   | No visual effect  | No visual effect                                      |
| Weatherability      | 1000 hours in QUV<br>(ASTM G-53)                         | No visual effect   | No visual effect  | No visual effect                                      |
| Abrasion Resistance | Method 5306 US<br>Federal test 191A CS 10<br>+ 500 g/arm | Number of cycles until<br>print is illegible<br>175 cycles | Number of cycles until<br>print is illegible<br>75 cycles | Numbers of cycles until print is illegible 175 cycles |

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

Samples printed with the R-6000 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-6000       |  |  |  |
|-----------------------------|--|--|--|
| CHEMICAL REAGENT            | APPEARANCE OF THE PRINTING<br>BEFORE RUBBING | APPEARANCE OF THE PRINTING AFTER RUBBING |  |
| Isopropyl alcohol           | 1  | 1  |  |
| Methyl ethyl ketone         | 5  | 5  |  |
| Alcohol Mix*                | 1  | 2  |  |
| Gasoline                    | 1  | 5  |  |
| Diesel                      | 1  | 1  |  |
| Skydrol® 500B-4             | 1  | 5  |  |
| Mil 5606 Oil                | 1  | 1  |  |
| 5% sodium hydroxide         | 1  | 1  |  |
| 10% Sulphuric Acid Solution | 1  | 1  |  |
| Deionized Water             | 1  | 1  |  |
| 10% Salt Water Solution     | 1  | 1  |  |
| n-hexane                    | 1  | 1  |  |
| Iso-octane                  | 1  | 1  |  |
| Ethanol                     | 1  | 1  |  |
| ASTM#3 oil                  | 1  | 1  |  |
| Acetone                     | 1  | 5  |  |

<sup>\*</sup> Alcohol Mix is 50% ethanol, 30% methanol, and 20% water by volume.

Samples printed with the R-4400white 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.

| Black B-7593 / R-4400W      |  |  |  |
|-----------------------------|--|--|--|
| CHEMICAL REAGENT            | APPEARANCE OF THE PRINTING<br>BEFORE RUBBING | APPEARANCE OF THE PRINTING AFTER RUBBING |  |
| Isopropyl alcohol           | 1  | 5  |  |
| Methyl ethyl ketone         | NP   | NP                                       |  |
| Alcohol Mix*                | 1  | 1  |  |
| Gasoline                    | 1  | 5  |  |
| Diesel                      | 1  | 1  |  |
| Skydrol® 500B-4             | NP   | NP                                       |  |
| Mil 5606 Oil                | 1  | 1  |  |
| 5% sodium hydroxide         | 1  | 1  |  |
| 10% Sulphuric Acid Solution | 1  | 1  |  |
| Deionized Water             | 1  | 1  |  |
| 10% Salt Water Solution     | 1  | 1  |  |
| n-hexane                    | 1  | 1  |  |
| lso-octane                  | 1  | 1  |  |
| Ethanol                     | 1  | 4  |  |

| ASTM#3 oil | 1  | 4  |
|------------|----|----|
| Acetone    | NP | NP |

<sup>\*</sup> Alcohol Mix is 50% ethanol, 30% methanol, and 20% water by volume.

#### Rating Scale:

- 1 = no visible effect
- 2 = slight smear or print removal, detectable but minimal smear
- 3 = moderate smear or print removal (print still legible)
- 4 = severe smear or print removal (print legible or just barely legible)
- 5 = complete print and/or topcoat removal
- NP = print removed prior to rub

Product testing, customer feedback 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:

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Note: All values shown are averages and should not be used for specification purposes.

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