

## BRADY B-595 VINYL FILM WITH PERMANENT ADHESIVE

TDS No. B-595

Effective Date: 08/31/2011

### **Description:**

Brady B-595 indoor/outdoor marking film is a high gloss, durable, flexible, pressure sensitive adhesive product, designed for use in cartridge form with BBP® 31 Sign and Label Printer, GlobalMark™ Industrial Label Maker, MiniMark™ Industrial Label Printer, PowerMark® Sign and Label Maker, Labelizer® Plus Sign and Label Maker, VersaPrinter™ Sign and Label Maker, BMP® 71 Label Printer, BMP® 21 Label Printer, IDXPERT™ Labeling Printer, and the HandiMark® Portable Label Maker.

### **Details:**

#### **Use:**

B-595 is used for Pipemarkers, Arrow Tape, Warehouse Marking, Warning Panels, Safety Signs, Arc Flash and Visual Workplace labels.

Brady B-595 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

#### **Special Properties:**

Permanent acrylic pressure sensitive adhesive can be applied at cold temperature.

#### **Substrate Type:**

Vinyl film

#### **Standard Material Colors:**

White, red, yellow, green, blue, orange, black, gray, brown, gold, purple, and clear

#### **Standard Legend Colors:**

Black, white, red, green, blue, yellow, orange and magenta

#### **Thickness (PSTC-33):**

Total: 0.004 in. (0.10mm)

#### **Adhesive Properties:**

Adhesion to Steel (PSTC-101)

15 Minute Dwell (Avg.) -- 80 oz/in. (87.5 N/100mm)

Ultimate Dwell (72 Hrs.) 85 oz/in. (93 N/100mm)

Tack (ASTM D 2979) (Avg.) 1100 g (10.5 N)

Adhesion to Powder Coated Metal (PSTC-101)

15 Minute Dwell (Avg.) 60 oz/in (65 N/100mm)

Ultimate Dwell (72 Hrs.) 75 oz/in (82 N/100mm)

Adhesion to Polypropylene (PSTC-101)

15 Minute Dwell (Avg.) 60 oz/in (65 N/100mm)

Adhesion to Textured ABS (PSTC-101)

15 Minute Dwell (Avg.) 37 oz/in (40 N/100mm)

Adhesion to Glass (PSTC-101)

15 Minute Dwell (Avg.) 82 oz/in (90 N/100mm)

- **Note** - B-595 is not recommended for Bare Concrete or Unpainted Wood

#### **Abrasion Resistance (Method 5306 of U.S. Federal Test Method Std. No. 191A):**

CS-10 wheels, 500 g wts.

The printed legend withstands up to 250 cycles

**Gloss (ASTM D 523):**

60° 50 Gardner Units minimum

**Minimum Application Temperature**

0°F (-18°C)

**Service Temperature**

-40°F to 180°F (-40°C to 82°C)

**Average Outdoor Durability:**

8-10 years (Average expected outdoor life of product will depend on user definition of failure, climatic conditions, mounting techniques, and material color.) The 8-10 year outdoor durability applies to the vinyl label stock only; ribbon durability will vary. A polyester overlaminate is recommended for harsh environments - long term exposure to wind and rain.

**Chemical Resistance:**

Samples were printed with the standard performance R10000 ribbon using the BBP® 31 Sign and Label Printer. Testing conducted at room temperature.

| REAGENT                | 7 DAY IMMERSION | DIP TEST | RUB TEST |
|------------------------|-----------------|----------|----------|
| 30% Sulfuric Acid      | NE              | NE       | NE       |
| 10% Sulfuric Acid      | NE              | NE       | NE       |
| 30% Hydrochloric Acid  | NE              | NE       | NE       |
| 10% Hydrochloric Acid  | NE              | NE       | NE       |
| Glacial Acetic Acid    | F               | F        | NE       |
| 5% Acetic Acid         | NE              | NE       | NE       |
| 50% Sodium Hydroxide   | NE              | NE       | NE       |
| 10% Sodium Hydroxide   | F               | NE       | NE       |
| 10% Ammonia            | NE              | NE       | NE       |
| 5% Sodium Hypochlorite | NE              | NE       | NE       |
| Methyl Ethyl Ketone    | F               | F        | F        |
| Acetone                | F               | F        | F        |
| Toluene                | F               | F        | F        |
| Methanol               | F               | NE       | F        |
| Isopropyl Alcohol      | F               | NE       | NE       |
| Heptane                | F               | NE       | NE       |
| Mineral Spirits        | F               | F        | NE       |
| Turpentine             | F               | F        | NE       |
| Kerosene               | F               | F        | NE       |
| Diesel Fuel            | NE              | NE       | NE       |
| Gasoline               | F               | F        | F        |
| ASTM #3 Oil            | NE              | NE       | NE       |

|                     |    |    |    |
|---------------------|----|----|----|
|                     |    |    |    |
| SAE 20 Oil          | NE | NE | NE |
| 10% Sodium Chloride | NE | NE | NE |
| Alconox®            | NE | NE | NE |
| Deionized Water     | NE | NE | NE |

NE = No Effect

NT = Not Tested

F = Failed (affected sample)

7 Day Immersion: Immersed in reagent for 7 days.

Dip Test: Five 10 minute dips in reagent with 30 minute recovery.

Rub Test: Rubbed sample for 1 minute with swab soaked in reagent.

Shelf Life and Fitness for Use: Product testing, customer feedback, and history of similar products, support a customer performance expectation of one year 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. 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:

ANSI: American National Standards Institute (U.S.A.)

ASTM: American Society for Testing and Materials (U.S.A)

Alconox® is a registered trademark of Alconox Co.

BBP® 31 is a registered trademark of Brady Worldwide, Inc.

BMP® 21 is a registered trademark of Brady Worldwide, Inc.

BMP® 71 is a registered trademark of Brady Worldwide, Inc.

Fed. Spec.: United States Federal Specification (U.S.A.)

GlobalMark™ Industrial Label Maker is a trademark of Brady Worldwide, Inc.

HandiMark® is a registered trademark of Brady Worldwide, Inc.

IDXPART™ is a trademark of Brady Worldwide, Inc.

Labelizer® is a registered trademark of Brady Worldwide, Inc.

MINIMARK™ is a trademark of Brady Worldwide, Inc.

PSTC: Pressure Sensitive Tape Council (U.S.A.)

Powermark™ is a trademark of Brady Worldwide, Inc.

SAE: Society of Automotive Engineers (U.S.A.)

VersaPrinter™ is a trademark of Brady Worldwide, Inc.

**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 representation or warranties, express or implied, and assumes no liability in connection with the use of this information.

#### WARRANTY

Brady products are sold with the understanding that the buyers will test them in actual use and determine for themselves their adaptability to their intended uses. Brady warrants to the buyers that its products are free from defects in material and workmanship, but limits its obligations under this warranty to replacement of the product shown to Brady's satisfaction to have been defective at the time Brady sold it. This warranty does not extend to any persons obtaining the product from the buyers. This warranty is in lieu of any other warranty, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose, and any other obligations or liability on Brady's part. Under no circumstances will Brady be liable for any loss, damage, expense, or consequential damages of any kind arising in connection with the use, or inability to use, Brady's products.

Material may not be reproduced or distributed in any form without written permission

---

Brady North America | 6555 W. Good Hope Road | Milwaukee, WI 53223 | USA | Tel: 414-358-6600 | Fax: 800-292-2289

## BRADY B-595 VINYL FILM WITH PERMANENT ADHESIVE

TDS No. B-595

Effective Date: 08/31/2011

### **Description:**

Brady B-595 indoor/outdoor marking film is a high gloss, durable, flexible, pressure sensitive adhesive product, designed for use in cartridge form with BBP® 31 Sign and Label Printer, GlobalMark™ Industrial Label Maker, MiniMark™ Industrial Label Printer, PowerMark® Sign and Label Maker, Labelizer® Plus Sign and Label Maker, VersaPrinter™ Sign and Label Maker, BMP® 71 Label Printer, BMP® 21 Label Printer, IDXPERT™ Labeling Printer, and the HandiMark® Portable Label Maker.

### **Details:**

#### **Use:**

B-595 is used for Pipemarkers, Arrow Tape, Warehouse Marking, Warning Panels, Safety Signs, Arc Flash and Visual Workplace labels.

Brady B-595 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

#### **Special Properties:**

Permanent acrylic pressure sensitive adhesive can be applied at cold temperature.

#### **Substrate Type:**

Vinyl film

#### **Standard Material Colors:**

White, red, yellow, green, blue, orange, black, gray, brown, gold, purple, and clear

#### **Standard Legend Colors:**

Black, white, red, green, blue, yellow, orange and magenta

#### **Thickness (PSTC-33):**

Total: 0.004 in. (0.10mm)

#### **Adhesive Properties:**

Adhesion to Steel (PSTC-101)

15 Minute Dwell (Avg.) -- 80 oz/in. (87.5 N/100mm)

Ultimate Dwell (72 Hrs.) 85 oz/in. (93 N/100mm)

Tack (ASTM D 2979) (Avg.) 1100 g (10.5 N)

Adhesion to Powder Coated Metal (PSTC-101)

15 Minute Dwell (Avg.) 60 oz/in (65 N/100mm)

Ultimate Dwell (72 Hrs.) 75 oz/in (82 N/100mm)

Adhesion to Polypropylene (PSTC-101)

15 Minute Dwell (Avg.) 60 oz/in (65 N/100mm)

Adhesion to Textured ABS (PSTC-101)

15 Minute Dwell (Avg.) 37 oz/in (40 N/100mm)

Adhesion to Glass (PSTC-101)

15 Minute Dwell (Avg.) 82 oz/in (90 N/100mm)

- **Note** - B-595 is not recommended for Bare Concrete or Unpainted Wood

#### **Abrasion Resistance (Method 5306 of U.S. Federal Test Method Std. No. 191A):**

CS-10 wheels, 500 g wts.

The printed legend withstands up to 250 cycles

**Gloss (ASTM D 523):**

60° 50 Gardner Units minimum

**Minimum Application Temperature**

0°F (-18°C)

**Service Temperature**

-40°F to 180°F (-40°C to 82°C)

**Average Outdoor Durability:**

8-10 years (Average expected outdoor life of product will depend on user definition of failure, climatic conditions, mounting techniques, and material color.) The 8-10 year outdoor durability applies to the vinyl label stock only; ribbon durability will vary. A polyester overlamine is recommended for harsh environments - long term exposure to wind and rain.

**Chemical Resistance:**

Samples were printed with the standard performance R10000 ribbon using the BBP® 31 Sign and Label Printer. Testing conducted at room temperature.

| REAGENT                | 7 DAY IMMERSION | DIP TEST | RUB TEST |
|------------------------|-----------------|----------|----------|
| 30% Sulfuric Acid      | NE              | NE       | NE       |
| 10% Sulfuric Acid      | NE              | NE       | NE       |
| 30% Hydrochloric Acid  | NE              | NE       | NE       |
| 10% Hydrochloric Acid  | NE              | NE       | NE       |
| Glacial Acetic Acid    | F               | F        | NE       |
| 5% Acetic Acid         | NE              | NE       | NE       |
| 50% Sodium Hydroxide   | NE              | NE       | NE       |
| 10% Sodium Hydroxide   | F               | NE       | NE       |
| 10% Ammonia            | NE              | NE       | NE       |
| 5% Sodium Hypochlorite | NE              | NE       | NE       |
| Methyl Ethyl Ketone    | F               | F        | F        |
| Acetone                | F               | F        | F        |
| Toluene                | F               | F        | F        |
| Methanol               | F               | NE       | F        |
| Isopropyl Alcohol      | F               | NE       | NE       |
| Heptane                | F               | NE       | NE       |
| Mineral Spirits        | F               | F        | NE       |
| Turpentine             | F               | F        | NE       |
| Kerosene               | F               | F        | NE       |
| Diesel Fuel            | NE              | NE       | NE       |
| Gasoline               | F               | F        | F        |
| ASTM #3 Oil            | NE              | NE       | NE       |

|                     |    |    |    |
|---------------------|----|----|----|
|                     |    |    |    |
| SAE 20 Oil          | NE | NE | NE |
| 10% Sodium Chloride | NE | NE | NE |
| Alconox®            | NE | NE | NE |
| Deionized Water     | NE | NE | NE |

NE = No Effect

NT = Not Tested

F = Failed (affected sample)

7 Day Immersion: Immersed in reagent for 7 days.

Dip Test: Five 10 minute dips in reagent with 30 minute recovery.

Rub Test: Rubbed sample for 1 minute with swab soaked in reagent.

Shelf Life and Fitness for Use: Product testing, customer feedback, and history of similar products, support a customer performance expectation of one year 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. 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:**

ANSI: American National Standards Institute (U.S.A.)

ASTM: American Society for Testing and Materials (U.S.A)

Alconox® is a registered trademark of Alconox Co.

BBP® 31 is a registered trademark of Brady Worldwide, Inc.

BMP® 21 is a registered trademark of Brady Worldwide, Inc.

BMP® 71 is a registered trademark of Brady Worldwide, Inc.

Fed. Spec.: United States Federal Specification (U.S.A.)

GlobalMark™ Industrial Label Maker is a trademark of Brady Worldwide, Inc.

HandiMark® is a registered trademark of Brady Worldwide, Inc.

IDXPART™ is a trademark of Brady Worldwide, Inc.

Labelizer® is a registered trademark of Brady Worldwide, Inc.

MINIMARK™ is a trademark of Brady Worldwide, Inc.

PSTC: Pressure Sensitive Tape Council (U.S.A.)

Powermark™ is a trademark of Brady Worldwide, Inc.

SAE: Society of Automotive Engineers (U.S.A.)

VersaPrinter™ is a trademark of Brady Worldwide, Inc.

**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 representation or warranties, express or implied, and assumes no liability in connection with the use of this information.

**WARRANTY**

Brady products are sold with the understanding that the buyers will test them in actual use and determine for themselves their adaptability to their intended uses. Brady warrants to the buyers that its products are free from defects in material and workmanship, but limits its obligations under this warranty to replacement of the product shown to Brady's satisfaction to have been defective at the time Brady sold it. This warranty does not extend to any persons obtaining the product from the buyers. This warranty is in lieu of any other warranty, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose, and any other obligations or liability on Brady's part. Under no circumstances will Brady be liable for any loss, damage, expense, or consequential damages of any kind arising in connection with the use, or inability to use, Brady's products.

Material may not be reproduced or distributed in any form without written permission

---

Brady North America | 6555 W. Good Hope Road | Milwaukee, WI 53223 | USA | Tel: 414-358-6600 | Fax: 800-292-2289