

 [Back to last screen](#)



## Technical Data Sheet

### BRADY B-580 VINYL FILM WITH PERMANENT ADHESIVE

TDS No. B-580

Effective Date: 19-May-2009

#### Description:

Brady B-580 indoor/outdoor marking film is a high gloss, durable, flexible, pressure sensitive adhesive product, designed for use in cartridge form with the Labelizer® Plus printer, LabelLite® printer, VersaPrinter™ Label and Sign Maker System, HandiMark® Portable Label Maker, MiniMark™, PowerMark®.

#### Details:



#### Use:

Brady-580 is used for Pipemarker, Arrow Tape, Warehouse Marking, Warning Panels and Safety Signs.

#### Special Properties:

Permanent cold temperature applicable pressure sensitive acrylic

#### Substrate Type:

Vinyl film

#### Standard Material Colors:

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

#### Standard Legend Colors:

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

#### Thickness (PSTC-133):

Total: 0.042 in. (0.108mm)

#### Adhesive Properties:

Adhesion to Steel (PSTC-101)

15 Minute Dwell (Avg.) -- 70 oz/in. (76.5 N/100mm)

Ultimate Dwell (72 Hrs.) (Avg.) -- 70 oz/in. (76.5 N/100mm)

Tack (ASTM D 2979) (Avg.) -- 800 g (8 N)

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

CS-10 wheels, 250 g wts.

The printed legend withstands up to 100 cycles.

#### Gloss (ASTM D 523):

60° - 40 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:

3-5 years (Average expected outdoor life of product will depend on user definition of failure, climatic conditions, mounting techniques and material color.) Ribbon and material UV resistance does not represent ribbon wear. A polyester overlaminate is recommended for harsh environments - long term exposure to wind and rain.

**Chemical Resistance:**

| REAGENT               | 7 DAY IMMERSION | DIP TEST | RUB TEST |
|-----------------------|-----------------|----------|----------|
| 30% Sulfuric Acid     | NE              | NE       | NE       |
| 10% Sulfuric Acid     | NE              | NE       | NE       |
| 30% HCl               | NE              | NE       | NE       |
| 10% HCl               | NE              | NE       | NE       |
| 50% NaOH              | NE              | NE       | NE       |
| 10% NaOH              | F               | F        | NE       |
| Methyl Ethyl Ketone   | F               | F        | F        |
| Acetone               | F               | F        | F        |
| 1,1,1-Trichloroethane | F               | F        | F        |
| Methanol              | NE              | NE       | NE       |
| IPA (Isopropanol)     | F               | NE       | NE       |
| ASTM #3 Oil           | NE              | NE       | NE       |
| SAE 20 Oil            | NE              | NE       | NE       |
| Alconox®              | NE              | NE       | NE       |
| Toluene               | F               | F        | F        |
| Mineral Spirits       | F               | NE       | NE       |
| Glacial Acetic Acid   | F               | F        | F        |
| 5% Acetic Acid        | NE              | NE       | NE       |
| Diesel Fuel           | F               | NE       | NE       |
| Heptane               | F               | NE       | NE       |
| Cellosolve Acetate    | F               | F        | F        |
| Conc. Ammonia         | NE              | NE       | NE       |
| 10% Ammonia           | NE              | NE       | NE       |
| Turpentine            | F               | F        | F        |
| Kerosene              | F               | NE       | NE       |
| Water                 | NE              | NE       | NE       |
| Gasoline              | F               | F        | F        |

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:**

1 year when stored at 70°F (21 °C) and 40% to 50% R.H.

## BRADY B-580 WITH POLYESTER OVERLAMINATE - For extended outdoor life of ribbon and exposure to harsh environments.

**Description:**

B-580 with clear 2 mil polyester overlaminate.

**Substrate Type:**

Vinyl film with polyester overlaminate

**Thickness (PSTC-133):**

Total: 0.0075 in. (0.19mm)

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

CS-17 wheels, 1000 g wts.

Overlaminate withstood 2500 cycles.

**Gloss (ASTM D 523):**

85 Gardner Units (60° gloss)

**Service Temperature:**

-40 °F to 176 °F (-40 °C to 80 °C)

**Average Outdoor Durability:**

3-5 years (Average expected outdoor life of product will depend on user definition of failure, climatic

conditions, mounting techniques and material color.)

**Chemical Resistance (with 2 mil polyester overlamine):**

| REAGENT               | 7 DAY IMMERSION | DIP TEST | RUB TEST |
|-----------------------|-----------------|----------|----------|
| 30% Sulfuric Acid     | NE              | NE       | NE       |
| 10% Sulfuric Acid     | NE              | NE       | NE       |
| 30% HCl               | NE              | NE       | NE       |
| 10% HCl               | NE              | NE       | NE       |
| 50% NaOH              | NE              | NE       | NE       |
| 10% NaOH              | NE              | NE       | NE       |
| Methyl Ethyl Ketone   | F               | NE       | NE       |
| Acetone               | F               | NE       | NE       |
| 1,1,1-Trichloroethane | F               | NE       | NE       |
| Methanol              | NE              | NE       | NE       |
| IPA (Isopropanol)     | F               | NE       | NE       |
| ASTM #3 Oil           | NE              | NE       | NE       |
| SAE 20 Oil            | NE              | NE       | NE       |
| Alconox®              | NE              | NE       | NE       |
| Toluene               | F               | F        | NE       |
| Mineral Spirits       | F               | NE       | NE       |
| Glacial Acetic Acid   | F               | F        | NE       |
| 5% Acetic Acid        | NE              | NE       | NE       |
| Diesel Fuel           | F               | NE       | NE       |
| Heptane               | F               | NE       | NE       |
| Cellosolve Acetate    | F               | NE       | NE       |
| Conc. Ammonia         | NE              | NE       | NE       |
| 10% Ammonia           | NE              | NE       | NE       |
| Turpentine            | F               | NE       | NE       |
| Kerosene              | F               | NE       | NE       |
| Water                 | NE              | NE       | NE       |
| Gasoline              | F               | 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:**

1 year when stored at 70°F (21 °C) and 40% to 50% R.H.

**Trademarks:**

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

Alconox® is a registered trademark of Alconox Co.

All S.I. Units (metric) are mathematically derived from the U.S. Conventional

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

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

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

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

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

Units.

VersaPrinter™ is a trademark of Brady Worldwide, Inc.

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

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