

**BRADY B-642 TRANSLUCENT PVF FILM TAPE**

TDS No. B-642  
Effective Date: 5/17/2023

**Description:**

**GENERAL**

**Print Technology:** Dot matrix and thermal transfer

**Material Type:** Translucent polyvinylfluoride

**Finish:** Provided in a self-laminated format with a white printable zone and a translucent overlaminating area.

**Adhesive:** Permanent acrylic

**APPLICATIONS**

Brady B642 is a thin tape with excellent flexibility for wrapping on small diameter wires. The polyvinylfluoride film provides good self-extinguishing properties and solvent resistance.

**RECOMMENDED RIBBONS**

Brady Series R2000 and R5000 black ribbons for dot matrix printing.

Brady Series R4300, R6200 and R7950 black ribbons for thermal transfer printing.

**REGULATORY/AGENCY APPROVALS**

For information on the Weee-RoHS compliance status for a Brady Product go to one of the following websites:

In Canada: [www.bradycanada.ca/weee-rohs](http://www.bradycanada.ca/weee-rohs)

In Europe: [www.bradyeurope.com/rohs](http://www.bradyeurope.com/rohs)

In Japan: [www.brady.co.jp/products/labelsuse/rohs](http://www.brady.co.jp/products/labelsuse/rohs)

All other regions: [www.bradyid.com/weee-rohs](http://www.bradyid.com/weee-rohs)

**Details:**

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total	0.0012 inch (0.030 mm) 0.0010 inch (0.025 mm) 0.0022 inch (0.055 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 24 hour dwell	30 oz/in (33 N/100 mm) 35 oz/in (38 N/100 mm)
-Textured ABS	20 minute dwell 24 hour dwell	12 oz/in (13 N/100 mm) 17 oz/in (19 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	21 oz/in (23 N/100 mm) 23 oz/in (25 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 1 second dwell	21 oz (600 g)
Tensile Strength and Elongation	ASTM D 1000 -Machine Direction	10 lbs/in (175 N/100 mm), 90%
Flammability	ASTM D 1000 -Average Burn Time	Less than 10 seconds
Application Temperature	Lowest application temperature to stainless steel	50°F (4°C)

Performance properties tested with white printable zone of B642 printed with the Brady Series R2000 and R5000 dot matrix ribbons and R4300 and R6200 thermal transfer ribbons. Samples wrapped around 0.080" OD TFE jacketed wire in a self-laminating format. All samples allowed to dwell 24 hours prior to testing.

PERFORMANCE PROPERTIES	TEST METHODS	AVERAGE RESULTS
High Service Temperatures	30 days at 248°F (120°C)	Slight discoloration at 120°C; no visible effect to print. Material discolored but functional up to 145°C.
Low Service Temperature	30 days at 94°F (70°C)	No visible effect
Weatherability	ASTM G155 Cycle 1 30 days in Xenon Arc Weatherometer	No visible effect
UV Light Resistance	ASTM G155 Cycle 1, without water spray 30 days in Xenon Arc Chamber	No visible effect
Humidity Resistance	30 days at 100°F (37°C), 95% R.H.	No visible effect
Salt Fog	ASTM B117 30 days in 5% Salt Fog Chamber	No visible effect

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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White printable zone of B642 printed with Brady Series R2000 and R5000 dot matrix ribbons and R4300 and R6200 thermal transfer ribbons. Samples wrapped around 0.080" OD TFE wires in a self-laminating format. Testing consisted of 5 cycles of a 10 minute immersion in the specified test fluid followed by a 30 minute recovery period. All samples allowed to dwell 24 hours prior to testing.

CHEMICAL REAGENT	APPEARANCE OF MARKER
Methyl Ethyl Ketone	Slight unwrap
Isopropyl Alcohol	No visible effect
Mineral Spirits	No visible effect
JP-8 Jet Fuel	No visible effect
SAE 30 WT Oil	No visible effect
Mil 5606 Oil	No visible effect
Speedi Kut Cutting Oil 332	No visible effect
Gasoline	Slight unwrap
Rust Veto® 377	No visible effect
Skydrol® 500B-4	Slight unwrap
Super Agitene®	Slight unwrap
Deionized Water	No visible effect
3% Alconox® Detergent	No visible effect

**Shelf Life:**

Product testing, customer feedback, and history of similar products, support a customer performance expectation of at least two years from the date of receipt for this product as long as this product is stored in its original packaging in an environment below 80 degrees F (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 applications.

**Trademarks:**

- ASTM: American Society for Testing and Materials (U.S.A.)
- Alconox® is a registered trademark of Alconox Co.
- Polyken™ is a trademark of Testing Machines Inc.
- Rust Veto® is a registered trademark of the E.F. Houghton & Co.
- SAE: Society of Automotive Engineers (U.S.A.)
- Skydrol® is a registered trademark of the Monsanto Company
- Super Agitene® is a registered trademark of Graymills Corporation

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

#### **WARRANTY**

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