

Technical Data Sheet**TDS No. B-427****Effective Date: 03/06/2001**

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BRADY B-427 THERMAL TRANSFER PRINTABLE TRANSLUCENT VINYL TAPE**Description:**

Brady B-427 is a durable, translucent vinyl film with an acrylic pressure sensitive adhesive. B-427 is provided in a self-laminated format which has a white thermal transfer printable zone and a translucent overlaminating area.

B-427 is an excellent material for wire and cable identification. The Brady Series R4300 black and R4500 colored (red, blue, and green) ribbons are recommended for thermal transfer printing of B-427.

This material has good clarity, conformability and is self-extinguishing. B-427 has excellent water and oil resistance.

B-427 is UL Recognized to UL969 Labeling and Marking Standard when printed with the Brady Series R4300 and R6200 ribbons. See UL files MH17154 for specific details.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total	0.0040 inch (0.10 mm) 0.0006 inch (0.02 mm) 0.0046 inch (0.12 mm)
Adhesion to: -Stainless Steel -Polypropylene	ASTM D 1000 20 minute dwell 24 hour dwell 20 minute dwell 24 hour dwell	32 oz/in (35 N/100 mm) 45 oz/in (49 N/100 mm) 22 oz/in (24 N/100 mm) 27 oz/in (30 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack (1 second dwell, 1 cm/sec separation)	18.7 oz (530 g)
Drop Shear	PSTC-7 (except use 1/2" x 1" sample)	2.5 hours
Tensile Strength and Elongation	ASTM D 1000 -Machine -Cross	12 lbs/in (210 N/100 mm), 90% 12 lbs/in (210 N/100 mm), 250%
Dielectric Strength	ASTM D 1000	6000 volts
Flammability	ASTM D 1000 Average Burn Time	ABT less than 10 seconds

Performance Properties tested on B-427 thermal transfer printed with Brady Series R4300 black ribbon and wrapped around 0.012" OD TFE wire in self-laminating format.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
High Service Temperature	30 days at 158°F (70°C)	No visible effect
Low Service Temperature	30 days at -40°F (-40°C)	No visible effect
Humidity Resistance	30 days at 100°F (37°C), 95% R.H.	No visible effect
UV Light Resistance	30 days in UV Sunlighter™ 100	No visible effect
Weatherability	ASTM G 26 30 days in Xenon Arc Weatherometer	No visible effect
PERFORMANCE PROPERTIES	TEST METHOD	
CHEMICAL RESISTANCE	SEE BELOW	

Samples were **thermal** transfer printed with Brady Series R4300 black ribbon and wrapped around 0.012" OD TFE wire in self-laminating format. Test was conducted at room temperature after 24 hour dwell. Testing consisted of 5 cycles of 10 minute immersions in the specified chemical reagent followed by 30 minute recovery periods.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE	
	SUBSTRATE/ADHESIVE	SERIES R4300 RIBBON
Isopropyl Alcohol	No visible effect	No visible effect
Mineral Spirits	No visible effect	No visible effect
JP-8 Jet Fuel	No visible effect	No visible effect
ASTM #3 Oil	No visible effect	No visible effect
Mil 5606 Oil	No visible effect	No visible effect
Thread Ezy®	No visible effect	No visible effect
Speedi Kut Cutting Oil 332	No visible effect	No visible effect
Rust Veto® 377	No visible effect	No visible effect
Super Agitene®	No visible effect	No visible effect
Northwoods™ Buzz Saw Terpene Cleaner	No visible effect	No visible effect
Deionized Water	No visible effect	No visible effect
3% Alconox® Detergent	No visible effect	No visible effect
10% Sodium Hydroxide Solution	No visible effect	No visible effect
10% Sulfuric Acid Solution	No visible effect	No visible effect
5% NaCl Salt Solution	No visible effect	No visible effect

B-427 is not recommended for use in harsh organic solvents such as methyl ethyl ketone, acetone, or 1,1,1-trichloroethane.

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 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 and References: Alconox® is a registered trademark of Alconox Co.
Northwoods™ is a trademark of the Superior Chemical Corporation
Polyken™ is a trademark of Testing Machines Inc.
Rust Veto® is a registered trademark of the E.F. Houghton & Co.
Sunlighter™ is a trademark of the Test Lab Apparatus Company
Super Agitene® is a registered trademark of Graymills Corporation
Thread Ezy® is a registered trademark of the Toledo-Bever Tools Company

ASTM: American Society for Testing and Materials (U.S.A.)
PSTC: Pressure Sensitive Tape Council (U.S.A.)

UL: Underwriters Laboratories, Inc. (U.S.A.)

All S.I. units are mathematically derived from the U.S. conventional 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.

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 obligation 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 of 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.**

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