

BRADY B-500 POLYMER COATED CLOTH TAPE

TDS No. B-500
 Effective Date: 08/19/2005

Description:

Brady B-500 is a polymer coated cloth with a printable topcoat and a rubber based pressure sensitive adhesive.

Brady B-500 is a general purpose material for a variety of pre-printed labeling and wire marking applications requiring durability and economy.

Brady B-500 has good oil and water resistance and good print durability. B-500 has excellent flexibility for wrapping around curved surfaces.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000	0.0088 inch (0.223 mm)
Adhesion to:	ASTM D 1000	68 oz/in (74 N/100 mm)
-Stainless Steel	20 minute dwell 24 hour dwell	75 oz/in (82 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	63 oz/in (69 N/100 mm) 68 oz/in (74 N/100 mm)
-Textured ABS	20 minute dwell 24 hour dwell	20 oz/in (22 N/100 mm) 25 oz/in (27 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 1 second dwell	35 oz (1000 g)
Tensile Strength and Elongation	ASTM D 1000 -Machine Direction -Cross Direction	45 lbs/in (788 N/100 mm), 7% 32 lbs/in (560 N/100 mm), 18%
Application Temperature	Lowest application temperature to stainless steel	50°F (10°C)

The following testing is performed with pre-printed B-500 white wiremarkers and unprinted flat B-500 samples. Wiremarker samples were wrapped on 0.080" OD wires and flat samples were applied to flat aluminum panels. All samples allowed to dwell 24 hours prior to testing.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
High Service Temperature	30 days at 175°F (80°C)	Slight topcoat darkening at 80°C
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 155, Cycle 1 30 days in Xenon Arc Weatherometer	Very slight unwrap to wiremarker, no visible effect to printing
Salt Fog Resistance	ASTM B 117 30 days in 5% salt fog solution chamber	Slight unwrap to wiremarker, no visible effect to printing
Abrasion Resistance	Taber Abraser, CS-10 grinding wheels, 250 g/arm (Fed. Std. 191A, Method 5306)	Pre-printed wiremarker still legible after 100 cycles
PERFORMANCE PROPERTY		CHEMICAL RESISTANCE

Pre-printed B-500 white wiremarkers were wrapped around 0.080" OD wire and unprinted B-500 samples were laminated to flat aluminum panels. Samples allowed to dwell 24 hours prior to test. Testing consisted of 5 cycles of 10 minute immersions in the specified chemicals followed by 30 minute recovery periods. Testing was conducted at room temperature.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE
------------------	---

	APPEARANCE OF WIREMARKER	APPEARANCE OF FLAT SAMPLE
Methyl Ethyl Ketone	Marker fell off	Topcoat removed, adhesive failure
1,1,1-Trichloroethane	Severe unwrap, topcoat wrinkled	Topcoat delamination, adhesive failure
Isopropyl Alcohol	Slight unwrap	No visible effect
JP-4 Jet Fuel	Slight unwrap	No visible effect
SAE 20 WT Oil	No visible effect	No visible effect
Mil 5606 Oil	Slight unwrap	No visible effect
Speedi Kut Cutting Oil 332	No visible effect	No visible effect
Gasoline	Moderate unwrap	Slight adhesive ooze
Rust Veto® 377	Slight unwrap	No visible effect
Skydrol® 500B-4	Severe unwrap, topcoat wrinkled, adhesive soft	Topcoat delaminated from cloth
Super Agitene®	Moderate unwrap	Slight adhesive ooze
Deionized Water	No visible effect	No visible effect
3% Alconox® Detergent	No visible effect	No visible effect
10% Sodium Hydroxide Solution	Severe unwrap	Severe edge lift
10% Sulfuric Acid Solution	No visible effect	No visible effect
Northwoods™ Buzz Saw Citrus Degreaser	Slight unwrap	No visible effect
5% Salt Water Solution	No visible effect	No visible effect

Note: Environmental aging and chemical resistance test results may be different on colored B-500 wiremarkers.

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:

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.
Skydrol® is a registered trademark of the Monsanto Company
Sunlighter™ is a trademark of the Test Lab Apparatus Company
Super Agitene® is a registered trademark of Graymills Corporation
ASTM: American Society for Testing and Materials (U.S.A.)
SAE: Society of Automotive Engineers (U.S.A.)

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

All S.I. Units (metric) 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.

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

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.

Copyright 2016 Brady Worldwide, Inc. | All Rights Reserved
Material may not be reproduced or distributed in any form without written permission.

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