BRADY
WHEN PERFORMANCE MATTERS MOST™

Technical Data Sheet

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: -Stainless Steel	ASTM D 1000 20 minute dwell 24 hour dwell	68 oz/in (74 N/100 mm) 75 oz/in (82 N/100 mm) 63 oz/in (69 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	68 oz/in (74 N/100 mm) 20 oz/in (22 N/100 mm)
-Textured ABS	20 minute dwell 24 hour dwell	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	N o 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</ td>	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 customerperformance 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.
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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.!
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Note: All values shown are averages and should not be used for specification purposes.
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