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Technical Data Sheet

BRADY B-502 POLYMER COATED CLOTH TAPE

TDS No. B-502

Effective Date: 11-Jun-2009

Description:

GENERAL

Print Technology: Dot Matrix

Material Type: Polymer Coated Cloth

Finish: Matte

Adhesive: Permanent Rubber

APPLICATIONS

Labeling and marking applications requiring a write-on or dot matrix printable surface. B-502 is a good wire or cable marker material.

RECOMMENDED RIBBONS

Brady Series 2000 and 5000

REGULATORY

Brady B-502 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

SPECIAL FEATURES

Brady B-502 has good smudge resistance, oil and water resistance, and fade resistance. B-502 has good flexibility for wrapping around curved surfaces.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000	0.0096 inch (0.243 mm)
Adhesion to:	ASTM D 1000	63 oz/in (69 N/100 mm)
-Stainless Steel	20 minute dwell 24 hour dwell	70 oz/in (77 N/100 mm)
-Textured ABS	20 minute dwell 24 hour dwell	26 oz/in (28 N/100 mm) 29 oz/in (32 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	60 oz/in (66 N/100 mm) 66 oz/in (72 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 1 second dwell	32 oz (920 g)
Tensile Strength and Elongation	ASTM D 1000 -Machine Direction -Cross Direction	50 lbs/in (876 N/100 mm), 7% 35 lbs/in (613 N/100 mm), 18%
Application Temperature	Lowest application temperature to stainless steel	50°F (10°C)

The following testing is performed with the B-502 printed with the Brady Series 2000 and 5000 ribbons. All samples allowed to dwell 24 hours prior to testing. Samples were tested on flat aluminum panels and wrapped around 0.120"OD wires.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
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High Service Temperature	30 days at 175°F (80°C)	Slight topcoat darkening and very slight Series 2000 and 5000 print fade
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	Slight Series 2000 and 5000 print fade
Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer	Slight Series 2000 and 5000 print fade
Salt Fog Resistance	ASTM B 117 30 days in 5% salt fog solution chamber	No visible effect
Abrasion Resistance	Taber Abraser, CS-10 grinding wheels, 250 g/arm (Fed. Std. 191A, Method 5306)	Series 2000 and 5000 print still legible after 500 cycles
PERFORMANCE PROPERTY		CHEMICAL RESISTANCE

Samples were printed with Series 2000 and 5000 ribbons, laminated to flat aluminum panels and wrapped around 0.120"OD wire, and dwelled 24 hours prior to test. Testing consisted of 5 cycles of 10 minute immersions in the specified chemicals followed by 30 minute recovery periods. After the final immersion the flat samples were rubbed with cotton swabs. Testing was conducted at room temperature.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	APPEARANCE OF WIREMARKER	APPEARANCE OF SERIES 2000 PRINT	APPEARANCE OF SERIES 5000 PRINT
Methyl Ethyl Ketone	Moderate unwrap, topcoat dissolved	Topcoat dissolved, print removed when rubbed	Topcoat dissolved, print removed when rubbed
1,1,1-Trichloroethane	Slight unwrap, topcoat and adhesive softened	Topcoat softened, moderate print removal when rubbed	Topcoat softened, moderate print removal when rubbed
Isopropyl Alcohol	Moderate unwrap	No visible effect	No visible effect
Mineral Spirits	No visible effect	No visible effect	No visible effect
JP-4 Jet Fuel	Slight unwrap	No visible effect	No visible effect
SAE 20 WT Oil	No visible effect	No visible effect	No visible effect
Mil 5606 Oil	No visible effect	No visible effect	No visible effect
Speedi Kut Cutting Oil 332	No visible effect	No visible effect	No visible effect
Gasoline	Slight unwrap	No visible effect	No visible effect
Rust Veto® 377	No visible effect	No visible effect	No visible effect
Skydrol® 500B-4	No unwrap, topcoat and adhesive softened	Print fade, print removed when rubbed	Print fade, print removed when rubbed
Super Agitene®	Slight unwrap	No visible effect	No visible effect
Deionized Water	No visible effect	No visible effect	No visible effect
3% Alconox® Detergent	No visible effect	No visible effect	No visible effect
10% Sodium Hydroxide Solution	No visible effect	No visible effect	No visible effect
10% Sulfuric Acid Solution	No visible effect	No visible effect	No visible effect
Northwoods™ Buzz Saw Citrus Degreaser	No visible effect	No visible effect	No visible effect
5% Salt Water Solution	No visible effect	No visible effect	No visible effect

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.

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.

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