

B-9902 Tyvek® LABEL STOCK

TDS No. B-9902
Effective Date: 03/21/2019

Description:

GENERAL

Print Technology: Thermal transfer
Materials Type: Tyvek
Finish: Matte
Adhesive: Permanent acrylic

APPLICATIONS

General industrial identification.

RECOMMENDED RIBBONS

Brady Series R4300
Brady Series R1916

REGULATORY 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
In Europe: www.bradyeurope.com/rohs
In Japan: www.bradyc.co.jp/products/labelsuse/rohs
All other regions: www.bradyd.com/weee-rohs

SPECIAL FEATURES

DIN VDE 0472 Part 815: Brady B-9902 meets requirements of a halogen-free material per DIN VDE 0472 part 815. (Statement based on review of product construction and confirmation halogen content test run at an independent test laboratory.)

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total	0.0063 inch (0.160 mm) 0.0010 inch (0.0254 mm) 0.0073 inch (0.1854 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 72 hour dwell	48 oz/inch (53 N/100 mm) 48 oz/inch (53 N/100 mm)
-Polypropylene	20 minutes dwell 72 hour dwell	37 oz/inch (40 N/100 mm) 38 oz/inch (42 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 0.5 second dwell	33 oz (939 g)

B-9902 is not recommended for low surface energy surfaces such as polyethylene and polypropylene.

Performance properties tested on B-9902 printed with the Brady Series R4300 ribbon. Printed samples were laminated to aluminum and allowed to dwell 24 hours before exposure to the indicated environments. Unless noted, results are the same for both ribbons.

PERFORMANCE PROPERTIES	TEST METHOD	TYPICAL RESULTS
High Service Temperature	30 days at various Temperatures	No visible effect to label at 90°C.
Low Service Temperature	30 days at -70°C	No visible effect
Short Term High Service Temperature	5 minutes at various Temperatures	No visible effect to label at 120°C. Slight label shrinkage at 130°C; Label becomes nonfunctional at 140°C due to label shrinkage.
Humidity Resistance	30 days at 100°F (37°C) and 95% relative humidity.	No visible effect
UV Light Resistance	30 days in UV Sunlighter™ 100	No visible effect
Weatherability	ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer	No visible effect
Salt Fog Resistance	ASTM B 117 30 days in 5% salt fog solution chamber	No visible effect
Abrasion Resistance	Taber Abraser, CS10 grinding wheels, 500 g/arm (Fed. Std. 191A, Method 5306)	R4300: Print legible after 50 cycles

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Samples were printed with the Brady Series 4300 ribbon. Samples were laminated to aluminum panels and allowed to dwell 24 hours prior to testing. Testing was conducted at room temperature and consisted of 30 minute immersions in the specified test fluid. After immersion, the samples were removed from the test fluid and the printed image rubbed 10 times with a cotton swab saturated with the test fluid. The rating scale below shows the effect to the quality of the print for each sample.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	EFFECT TO LABEL STOCK	EFFECTS TO PRINTED IMAGE	
		R4300	
		WITHOUT RUB	WITH RUB
MEK	Slight distortion of label stock	1	2
Isopropyl Alcohol	No visible effect	1	2
Mineral Spirits	No visible effect	1	2
SAE 20 WT Oil at 70°C	Slight distortion of label stock	1	4
MIL 5606 Oil	Slight distortion of label stock, label stock discolored	1	1
Speedi Kut Cutting Oil 332	Slight distortion of label stock, label stock discolored	1	1
Gasoline	Severe distortion of label stock	1	1
Rust Veto 342	Moderate distortion of label stock	1	1
Northwoods™ Buzz Saw Citrus Degreaser	label stock discolored	1	1
Deionized Water	No visible effect	1	1

5% Salt Solution	No visible effect	1	1
3% Alconox Solution	No visible effect	1	1
10% Sodium Hydroxide Solution	No visible effect	1	1
10% Sulfuric Acid Solution	No visible effect	1	1

Rating Scale:

- 1= no visible effect
- 2= slight smear or print removal, detectable but minimal smear
- 3= moderate smear or print removal (print still legible)
- 4= severe smear or print removal (print illegible or just barely legible)
- 5= complete print and/or topcoat removal
- NP= print removed prior to rub

Shelf Life:

Shelf life is 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° F (27° C) and 60% RH. It remains the responsibility of the user to assess the risk of using this product. We encourage customers to develop testing protocols that will qualify a product's fitness for use in their actual application.

Trademarks:

- Rust Veto® is a registered trademark of the E.F. Houghton & Co
- 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.
- Sunlighter™ is a trademark of the Test Lab Apparatus Company
- ASTM: American Society for Testing and Materials (U.S.A.)
- CSA: Canadian Standards Association
- SAE: Society of Automotive Engineers (U.S.A.)
- UL: Underwriters Laboratories Inc. (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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