

**BRADY B-139 SELF-WOUND PVF OVERLAMINATE**

TDS No. B-139  
Effective Date: 01/11/2001

**Description:**

Brady B-139 is a 1.0 mil clear polyvinyl fluoride film with an acrylic pressure sensitive adhesive. B-139 is supplied in self-wound format to be used with Brady Protector™ laminator which prints, overlaminates, and diecuts labels. B-139 has a topside silicone release which provides easy unwinding of self-wound rolls.

Brady B-139 is recommended for use with most standard Brady label materials. B-139 has excellent clarity, as well as very good temperature resistance, chemical resistance, and abrasion resistance. B-139 is specially developed for use in applications where resistance to UV light and outdoor weathering is required.

**Details:**

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Film -Adhesive -Total	0.0010 inch (0.025 mm) 0.0009 inch (0.023 mm) 0.0019 inch (0.048 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell	31 oz/in (34 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 1 second dwell	15 oz (430 g)
Release force of B-139 adhesive from B-139 topside silicone release	PSTC-1	1 oz/in (28 grams/25.4 mm)
Tensile Strength and Elongation	ASTM D 1000 -Machine Direction	16 lbs/in (280 N/100 mm), 150%
Abrasion Test	Taber Abraser, CS-17 grinding wheels, 1000 g/arm (Fed. Std. 191A, Method 5306)	Material severely abraded but not worn through after 1000 cycles
Application Temperature	Lower application temperature	50°F (10°C)

B-139 samples for Performance Properties were tested applied directly to aluminum panels and overlaminated over Brady B-423 white polyester. Samples allowed to dwell 24 hours at room temperature prior to testing.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Long Term High Service Temperature	30 days at 230°F (110°C)	No visible effect at 100°C. Very slight discoloration at 110°C. Slight discoloration at 130°C but still functional.
Long Term Low Service Temperature	30 days at -94°F (-70°C)	No visible effect at -70°C
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 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
PERFORMANCE PROPERTY	CHEMICAL RESISTANCE	

Samples were tested overlaminated over Brady B-423 white polyester. Samples allowed to dwell 24 hours at room temperature prior to testing. Testing consisted of 5 cycles of 10 minute immersions in the specified chemicals followed by 30 minute recovery periods. Except where noted otherwise, testing was conducted at room temperature.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE
Methyl Ethyl Ketone	Overlaminated slid off
1,1,1-Trichloroethane	Slight adhesive ooze
Isopropyl Alcohol	No visible effect
Gasoline	No visible effect
SAE 20 WT Oil @70°C	No visible effect

Brake Fluid	No visible effect
Ethylene Glycol	No visible effect
Northwoods™ Buzz Saw Citrus Degreaser	No visible effect
Speedi Kut Cutting Oil 332	No visible effect
Skydrol® 500B-4	Slight adhesive ooze
JP-8 Jet Fuel	No visible effect
5% Alconox® Detergent	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 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:**

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 Brady Protector™ is a trademark of Brady Worldwide, Inc.  
 Northwoods™ is a trademark of the Superior Chemical Corporation.  
 Polyken™ is a trademark of Testing Machines Inc.  
 Skydrol® is a registered trademark of the Monsanto Company  
 Sunlighter™ is a trademark of the Test Lab Apparatus Company  
 ASTM: American Society for Testing and Materials (U.S.A.)  
 PSTC: Pressure Sensitive Tape Council (U.S.A.)  
 SAE: Society of Automotive Engineers (U.S.A.)

**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.

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