

B-649 CLEAR CAST PVC OVERLAMINATE TAPE

TDS No. B-649
Effective Date: 06/07/2005

Description:

Brady B-649 is a 1.3 mil transparent polyvinyl chloride film with an acrylic pressure sensitive adhesive.

Brady B-649 is used as an overlaminate for labels where resistance to UV light and weathering is needed.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Total Thickness	0.0026 inch (0.066 mm)
Adhesion to: -Stainless Steel	ASTM D 1000 20 minute dwell 72 hour dwell	48 oz/in (52 N/100 mm) 63 oz/in (66 N/100 mm)
Tack	ASTM D 2979 Polyken™ Probe Tack 1 second dwell	18.4 oz (522 g)
Tensile Strength and Elongation	ASTM D 882 -Machine Direction	5 lbs/in (5 N/100 mm), 115 %
Application Temperature	Lowest application temperature to stainless steel	50°F (10°C)
Abrasion Test	Taber Abraser, CS-10 grinding wheels, 1000 g/arm (Fed. Std. 191A, Method 5306)	Material worn through at 1000 cycles

B-649 samples for Performance Properties were tested applied directly to aluminum panels and overlaminated on Brady B-423 white polyester and Brady B-580 white polyvinyl chloride labels. Samples allowed to dwell 24 hours at room temperature prior to testing.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
High Service Temperature	30 days at 176°F (80°C)	No visible at 70°C. Slight yellowing at 80°C. At 100°C moderate yellowing but still functional.
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
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 applied directly to aluminum panels and overlaminated on Brady B-423 white polyester and Brady B-580 white polyvinyl chloride labels. 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. Testing was conducted at room temperature unless noted.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE
Isopropyl Alcohol	No visible effect
Mineral Spirits	No visible effect
MIL-H-5606 Oil	No visible effect
JP-8 Jet Fuel	No visible effect
SAE 20 WT Oil @ 70°C	No visible effect
Gasoline	Moderate adhesive ooze
Glass Cleaner	No visible effect

Northwoods™ Buzz Saw Citrus Degreaser	No visible effect
3% Alconox® Detergent	No visible effect
Deionized Water	No visible effect
Skydrol® 500B-4	Overlaminates degraded and B-580 damaged.
10% Sulfuric Acid Solution	No visible effect
10% Sodium Hydroxide Solution	No visible effect

B-649 is not recommended for use in harsh organic solvents such as methyl ethyl ketone, acetone, or 1,1,1-trichloroethane.

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.
Skydrol® is a registered trademark of the Monsanto Company
ASTM: American Society for Testing and Materials (U.S.A.)
Fed. Spec.: United States Federal Specification (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.

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