

BRADY B-351 THERMAL TRANSFER PRINTABLE TAMPER-RESISTANT WHITE VINYL LABEL STOCK

TDS No. B-351
Effective Date: 1/11/2019

Description:

GENERAL

Print Technology: Thermal Transfer
Material Type: Tamper-Resistant Vinyl
Finish: Matte White
Adhesive: Acrylic

APPLICATIONS

Rating and serial plates that require high performance and resistance to product tampering

RECOMMENDED RIBBONS

Brady Series R6200
Brady Series R6000 Halogen Free

REGULATORY APPROVALS

For information on the Weeee-RoHS compliance status for a Brady Product go to one of the following websites:

In Canada: www.bradycanada.ca/weeee-rohs
In Europe: www.bradyeurope.com/rohs
In Japan: www.brady.co.jp/products/labelsuse/rohs
All other regions: www.bradyid.com/weeee-rohs

SPECIAL FEATURES

Brady B-351 is designed to fracture easily in order to show signs of product tampering and to prevent one-piece label removal. Use caution when removing from liner as material is fragile.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 Total (excluding liner)	0.0028 inches (0.071mm)
Adhesion to: -Stainless Steel -Painted Enamel -Polypropylene -Powder coated -Textured ABS -Glass	ASTM D 1000 20 minute dwell 24 hour dwell	Label destroys upon removal after both 20 minutes and 24 hours for all test surfaces
Tack	ASTM D 2979 Polyken™ Probe Tack 0.5 second dwell	45.4 oz (1288 g)
Tensile Strength and Elongation	ASTM D 1000	6.3 lbs/in (110 N/100 mm), 2%
Application Temperature	Lowest application temperature to stainless steel	50°F (10°C)

Samples were printed with the Brady Series R6200 and Brady Series R6000 Halogen Free ribbons. Samples applied to aluminum panels and allowed to dwell 24 hours at room temperature prior to testing. Unless noted otherwise, results were the same for both ribbons.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Long Term Service Temperature	30 days at various temperatures	No visible effect to label at 80°C. Slight discoloration at 100°C, but is functional.
Low Service Temperature	30 days at -40°F (-40°C)	No visible effect

Short Term Service Temperature	5 minutes at various temperatures	No visible effect to label at 180°C. Severe discoloration at 240°C but label still functional.
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
Abrasion Resistance	Taber Abraser, CS-10 grinding wheels, 500 g/arm, 100 cycles (Fed. Std. 191A, Method 5306)	R6200: Moderate print removal and print smear. Print still legible. R6000: Slight print removal. Print still legible.

PERFORMANCE PROPERTY	SOLVENT RESISTANCE
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Samples were printed with the Brady Series R6200 and the Brady Series R6000 Halogen Free ribbons. Samples applied to aluminum panels and 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. After final immersion samples rubbed 10 times with cotton swabs saturated in test fluids.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	EFFECT TO LABEL STOCK	R6200	R6000 Halogen Free
Isopropyl Alcohol	No visible effect	No visible effect without/ with rub.	No visible effect without/ with rub.
Formula 409® Cleaner	No visible effect	No visible effect without rub. Slight print removal with rub.	No visible effect without rub. Slight print removal with rub.
Northwoods™ Buzz Saw Citrus Degreaser	No visible effect	No visible effect without/ with rub.	No visible effect without/ with rub.
JP-8 Jet Fuel	Slight adhesive ooze	No visible effect without/ with rub.	No visible effect without/ with rub.
Mineral Spirits	Slight adhesive ooze	No visible effect without/ with rub.	No visible effect without/ with rub.
SAE 20 wt Oil @ 70°C	No visible effect	No visible effect without/ with rub.	No visible effect without/ with rub.
Gasoline	Slight adhesive ooze	No visible effect without rub. Slight print removal with rub.	No visible effect without rub. Slight print removal with rub.
Super Agitene®	No visible effect	No visible effect without/ with rub.	No visible effect without/ with rub.
Deionized Water	No visible effect	No visible effect without/ with rub.	No visible effect without/ with rub.
10% Sodium Hydroxide Solution	No visible effect	No visible effect without/ with rub.	No visible effect without/ with rub.
10% Sulfuric Acid Solution	No visible effect	No visible effect without/ with rub.	No visible effect without/ with rub.

B-351 is not recommended for use in harsh solvents such as MEK, Acetone, and 1,1,1-Trichloroethane.

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:

Formula 409® is a registered trademark of the Clorox Company
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
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 SI units (metric) are mathematically derived from 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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