

# 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 Weee-RoHS compliance status for a Brady Product go to one of the following websites:

In Canada: <a href="https://www.bradycanada.ca/weee-rohs">www.bradycanada.ca/weee-rohs</a>
In Europe: <a href="https://www.bradyeurope.com/rohs">www.bradyeurope.com/rohs</a>

In Japan: <a href="www.brady.co.jp/products/labelsuse/rohs">www.brady.co.jp/products/labelsuse/rohs</a>
All other regions: <a href="www.bradyid.com/weee-rohs">www.bradyid.com/weee-rohs</a>

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

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