

**BRADY B-330 BRADYWRAP MARKER**

TDS No. B-330  
Effective Date: 06/29/2011

**Description:**

**GENERAL**

**Print Technology:** Thermal transfer and dot matrix

**Material Type:** Heat shrinkable polyolefin

**Adhesive:** Heat activated polyester

**APPLICATIONS**

Identification of wire bundles, large conduits and installed cables

**RECOMMENDED RIBBONS**

Brady R2000 and R5000 Series for dot matrix printing

Brady R4300 and R6200 Series for thermal transfer printing

**SPECIAL FEATURES**

B-330 incorporates a matrix of pressure sensitive adhesive dots which promotes initial tack and adhesion during application.

B-330 Bradywrap™ Marker can be heat activated using a heat tool or an oven (2 minutes at 275°F) to create the most permanent adhesive bond. B-330 can also be used without heat activation. A 72 hour dwell is recommended when product is not heat activated.

B-330 is available in white and yellow.

**Details:**

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 -Substrate -Adhesive -Total	0.0065 in (0.165 mm) 0.0015 in (0.038 mm) 0.0080 in (0.203 mm)
Adhesion to: Aluminum QQ-A-250/5 panels	ASTM D 1000 Heated for 2 minutes at 275°F (135°C) 72 hour room temperature dwell	139 oz/inch (152 N/100 mm) 89 oz/inch (97 N/100 mm)
Tensile Strength and Elongation	ASTM D 1000 -Machine direction	24 lb/inch (420 N/100 mm), 540%
Dielectric Strength	ASTM D 1000	12,000 volts

Performance properties were tested on B-330 printed with Series R4300 and R6200 ribbons using BradyPrinter™ THT Model 300X thermal transfer printer, and with Series R2000 and R5000 ribbons using the SLV-DAT-PTR and the LS2000 (R5000 only) dot matrix printers. Printed samples of B-330 were wrapped around two 0.5 inch OD black MTW wires. One sample dwelled at room temperature for 72 hours and the other was heated at 135°C for 2 minutes before exposure to the indicated environmental conditions. Unless noted, results are the same for room temperature and heated samples.

PERFORMANCE PROPERTIES	TEST METHODS	TYPICAL RESULTS
Short Term High Temperature	24 hours at 248°F (120°C)	No visible effect, material distorts at higher temperatures
Long Term High Service Temperature	1000 hours at 230°F (110°C)	Slight topcoat discoloration, no visible effect to print
Low Service Temperature	30 days at -94°F (-70°C)	No visible effect
Humidity Resistance	30 days at 100°F, 95% R.H.	No visible effect
UV Light Resistance	30 days in Sunlighter™ 100	No visible effect
Weatherability <sup>1</sup>	ASTM G155, Cycle 1 30 days in Xenon Arc Weatherometer	No visible effect (white), slight topcoat fade (yellow)
Salt Fog Resistance	ASTM B117 30 days in 5% salt fog solution chamber	No visible effect

Print Adherence per SAE-AS81531 (Sec 3.4.2) R4300 and R6200 Series thermal transfer ribbons	SAE-AS81531 (Sec 4.6.2) 20 eraser rubs with hard hand pressure	Pass - Print still legible
Solvent Resistance per SAE-AS81531 (sec 3.4.3) R4300 and R6200 Series thermal transfer ribbons	MIL-STD-202, Method 215K 3 cycles of 3 minute immersions in specified fluids followed by toothbrush rub after each immersion	Pass - Print still legible

<sup>1</sup>B-330 is not recommended for outdoor use.

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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Samples printed with Series R4300 and R6200 thermal transfer ribbons and Series R2000 and R5000 dot matrix ribbons. Printed samples of B-330 white were wrapped around two 0.5" OD black MTW wires. One sample dwelled at room temperature for 72 hours and the other was heated at 135°C for 2 minutes. Test was conducted at room temperature. Testing consisted of 5 cycles of 10 minute immersions in the specified test fluid followed by a 30 minute recovery period. After final immersion, samples rubbed 10 times with cotton swab saturated with test fluid.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE (Effect to Label Stock)	
	72 HOURS AT ROOM TEMPERATURE	2 MINUTES AT 135°C
Methyl Ethyl Ketone	Less than 1/32" unwrap	Less than 1/32" unwrap
1,1,1-Trichloroethane	Less than 1/32" unwrap	Less than 1/32" unwrap
Isopropyl Alcohol	No unwrap	No unwrap
JP-8 Jet Fuel	No unwrap	No unwrap
Mil 5606 Oil	Less than 1/32" unwrap	No unwrap
Mil 7808 Oil	Less than 1/32" unwrap	Less than 1/32" unwrap
Gasoline	No unwrap	No unwrap
Skydrol® 500B-4	No unwrap	Less than 1/32" unwrap
Super Agitene®	No unwrap	No unwrap
BIOACT® EC-7R™ Terpene Cleaner	No unwrap	No unwrap
Deionized Water	No unwrap	No unwrap
3% Alconox® Detergent	No unwrap	No unwrap
10% Sodium Hydroxide Solution	No unwrap	No unwrap
10% Sulfuric Acid Solution	No unwrap	No unwrap
5% Salt Water Solution	No unwrap	No unwrap
Propylene Glycol	No unwrap	No unwrap

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE (Thermal Transfer Printed)			
	R4300 RIBBON		R6200 RIBBON	
	WITHOUT RUB	WITH RUB	WITHOUT RUB	WITH RUB
Methyl Ethyl Ketone	No visible effect	Print and topcoat removed	No visible effect	Print and topcoat removed
1,1,1-Trichloroethane	No visible effect	Print and topcoat removed	No visible effect	Print and topcoat removed
Isopropyl Alcohol	No visible effect	Slight print removal	No visible effect	No visible effect
JP-8 Jet Fuel	No visible effect	No visible effect	No visible effect	No visible effect
Mil 5606 Oil	No visible effect	No visible effect	No visible effect	No visible effect
Mil 7808 Oil	No visible effect	No visible effect	No visible effect	No visible effect
Gasoline	No visible effect	Severe print removal	No visible effect	Moderate print removal
Skydrol® 500B-4	No visible effect	Severe print removal	No visible effect	Severe print removal
Super Agitene®	No visible effect	Slight print removal	No visible effect	No visible effect
BIOACT® EC-7R™ Terpene Cleaner	No visible effect	Severe print removal	No visible effect	Moderate print removal
Deionized Water	No visible effect	No visible effect	No visible effect	No visible effect
3% Alconox® Detergent	No visible effect	No visible effect	No visible effect	No visible effect
10% Sodium Hydroxide Solution	No visible effect	No visible effect	No visible effect	No visible effect
10% Sulfuric Acid Solution	No visible effect	No visible effect	No visible effect	No visible effect
5% Salt Water Solution	No visible effect	No visible effect	No visible effect	No visible effect
Propylene Glycol	No visible effect	No visible effect	No visible effect	No visible effect

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE (Dot Matrix Printed)			
	R2000 RIBBON		R5000 RIBBON	
	WITHOUT RUB	WITH RUB	WITHOUT RUB	WITH RUB
Methyl Ethyl Ketone	No visible effect	Print and topcoat removed	No visible effect	Print and topcoat removed
1,1,1-Trichloroethane	No visible effect	Print and topcoat removed	No visible effect	Print and topcoat removed
Isopropyl Alcohol	No visible effect	No visible effect	No visible effect	No visible effect
JP-8 Jet Fuel	No visible effect	No visible effect	No visible effect	No visible effect
Mil 5606 Oil	No visible effect	No visible effect	No visible effect	No visible effect
Mil 7808 Oil	No visible effect	No visible effect	No visible effect	No visible effect
Gasoline	No visible effect	Moderate print removal	No visible effect	Slight print removal
Skydrol® 500B-4	No visible effect	Moderate print removal	No visible effect	Severe print removal
Super Agitene®	No visible effect	Slight print removal	No visible effect	No visible effect
BIOACT® EC-7R™ Terpene Cleaner	No visible effect	Severe print removal	No visible effect	Moderate print removal
Deionized Water	No visible effect	No visible effect	No visible effect	No visible effect
3% Alconox® Detergent	No visible effect	No visible effect	No visible effect	No visible effect
10% Sodium Hydroxide Solution	No visible effect	No visible effect	No visible effect	No visible effect
10% Sulfuric Acid Solution	No visible effect	No visible effect	No visible effect	No visible effect
5% Salt Water Solution	No visible effect	No visible effect	No visible effect	No visible effect
Propylene Glycol	No visible effect	No visible effect	No visible effect	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°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.

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