

BRADY B-7425 THERMAL TRANSFER PRINTABLE POLYPROPYLENE LABEL STOCK

TDS No. B-7425
Effective Date: 04/15/2016

Description:

GENERAL

Print Technology: Thermal transfer
Material Type: White polypropylene
Finish: Matte white
Adhesive: Acrylic

APPLICATION

Laboratory identification such as vials, centrifuge tubes and test tubes.

RECOMMENDED RIBBONS

Brady Series R4300, R6200 and R6400 black.

REGULATORY

Brady B-7425 is RoHS compliant to 2005/618/EC MCV amendment to RoHS Directive 2002/95/EC.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D1000 Total (excluding liner)	0.004 inches (0.1016 mm)
Adhesion to:	ASTM D1000	
-Stainless steel	20 minute dwell 24 hour dwell	50 oz/in (55 N/100 mm) 61 oz/in (66 N/100 mm)
-Glass	20 minute dwell 24 hour dwell	47 oz/in (52 N/100 mm) 51 oz/in (56 N/100 mm)
-Polypropylene	20 minute dwell 24 hour dwell	54 oz/in (59 N/100 mm) 57 oz/in (62 N/100 mm)
Tack	ASTM D2979 Polyken™ Probe Tack (1 second dwell, 1 cm/sec separation)	33 oz (922 g)

ENVIRONMENTAL PERFORMANCE PROPERTIES – LABEL APPLIED TO ROOM TEMPERATURE SURFACE

B-7425 samples were printed with Series R4300 and R6400 thermal transfer ribbons. B-7425 samples were adhered at room temperature to the surfaces listed below.

ENVIRONMENT	TEST METHOD	TYPICAL RESULTS
High Service Temperature	5 days at 70°C (158°F)	<ul style="list-style-type: none"> ✓ 8.5 ml glass test tube ✓ 1.5 ml polypropylene cryovial ✓ 5 ml polypropylene cryovial ✓ glass microscope slide ✓ polyethylene bag
Low Service Temperature	5 days at -80°C (-112°F)	<ul style="list-style-type: none"> ✓ 8.5 ml glass test tube ✓ 1.5 ml polypropylene cryovial ✓ 5 ml polypropylene cryovial ✓ glass microscope slide ✓ polyethylene bag
Simulated Incubator	3 cycles of 1 hour at 70°C (158°F) and 3 hours at room temperature	<ul style="list-style-type: none"> ✓ 8.5 ml glass test tube ◆ 1.5 ml polypropylene cryovial ✓ 5 ml polypropylene cryovial ✓ glass microscope slide ✓ polyethylene bag
Autoclave	5 cycles at 120°C (248°F) for 20 minutes	<ul style="list-style-type: none"> ✓ 8.5 ml glass test tube ✓ 1.5 ml polypropylene cryovial ✓ 5 ml polypropylene cryovial ✓ 15 ml polypropylene tube ✓ 50 ml polypropylene tube ✓ glass microscope slide ✓ vial top
Freezer	5 cycles of 16 hours at -80°C (-112°F) and 8 hours at room temperature	<ul style="list-style-type: none"> ✓ 8.5 ml glass test tube ✓ 1.5 ml polypropylene cryovial ✓ 5 ml polypropylene cryovial

		<ul style="list-style-type: none"> ✓ 15 ml polypropylene tube ✓ 50 ml polypropylene tube ✓ well plate ✓ glass microscope slide ✓ polyethylene bag ✓ vial top
Liquid Nitrogen	5 cycles of 4 hours at -196°C (-320°F) and 20 hours at room temperature	<ul style="list-style-type: none"> ✓ 8.5 ml glass test tube ✓ 1.5 ml polypropylene cryovial ✓ 5 ml polypropylene cryovial ✓ 15 ml polypropylene tube ✓ 50 ml polypropylene tube ✓ glass microscope slide ✓ vial top
Freezer to Boiling Water	1 hour at -80°C (-112°F) then placed in boiling water (100°C/212°F) for 10 minutes	<ul style="list-style-type: none"> ✓ 8.5 ml glass test tube ◆ 1.5 ml polypropylene cryovial ✓ 5 ml polypropylene cryovial ✓ 15 ml polypropylene tube ✓ 50 ml polypropylene tube ✓ glass microscope slide ◆ vial top
Liquid Nitrogen to Boiling Water	1 hour at -196°C (-320°F) then placed in boiling water (100°C/212°F) for 10 minutes	<ul style="list-style-type: none"> ◆ 8.5 ml glass test tube ◆ 1.5 ml polypropylene cryovial ◆ 5 ml polypropylene cryovial ◆ 15 ml polypropylene tube ◆ 50 ml polypropylene tube ◆ glass microscope slide ◆ vial top

✓=Label suitable for application; no visible effect, label remains adhered to test surface

◆=Label may work in application; test results were mixed

PERFORMANCE PROPERTIES – CHEMICAL RESISTANCE

The chemical resistance of B-7425 printed with Series R4300, R6200 and R6400 ribbons was tested at room temperature. The samples were immersed in the test solvent for 15 minutes. The samples were removed and rubbed 10 times with a cotton swab saturated with the test fluid. The samples were rated for the amount of print removal using the rating scale below.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE			
	EFFECT TO LABEL STOCK/ADHESIVE	EFFECTS TO PRINTED IMAGE		
		R4300	R6200	R6400
Ethanol	No visible effect	1	1	1
Methanol	No visible effect	1	1	1
Toluene	Slight adhesive ooze	2	4	1
Acetone	No visible effect	1	4	1
Isopropyl Alcohol	No visible effect	1	1	1
Xylene	Slight adhesive ooze	1-2	4-5	1
10% Formalin	No visible effect	1	1	1
Dimethylsulfoxide (DMSO)	No visible effect	1	2	1
50% Acetic Acid	No visible effect	1	2	1
10% Sodium Hydroxide	No visible effect	5, topcoat removal	5, topcoat removal	5, topcoat removal
10% Chlorox® bleach solution	No visible effect	1	1	1

Rating Scale

1=no visible effect

2=slight print smear or removal

3=moderate smear or print removal (print is still legible)

4=severe smear or print removal

5=complete print and/or topcoat removal

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:

ASTM: American Society for Testing and Materials (U.S.A.)

All S.I. Units (metric) are mathematically derived from the U.S. Conventional Units

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Note: All values shown are averages and should not be used for specification purposes.

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