

BRADY B-7651 THERMAL TRANSFER PRINTABLE MATT WHITE POLYESTER LABEL STOCK

TDS No. B-7651
Effective Date: 05/29/2015

Description:

GENERAL

Print Technology: Thermal transfer
Material Type: Polyester
Finish: Matt white
Adhesive: Permanent pressure sensitive acrylic adhesive

Applications:
Rating and serial plates using alphanumerics, barcodes, graphic symbols and logos

Recommended ribbons:
Brady series R7964
Brady series R6000 Halogen Free
Brady series R6000
Brady series R4900

Minimum application temperature:
10°C (50°F)

ROHS Environmental Compliance
Brady B-7651 is RoHS compliant to RoHS directive 2011/65/EU

Details:

Physical properties:

PROPERTIES	TEST METHOD	AVERAGE RESULTS
Thickness -Substrate -Adhesive -Total	ASTM D1000	0.050 mm (0.002 inch) 0.020 mm (0.001 inch) 0.070 mm (0.003 inch)
Adhesion to: -Stainless Steel -Polypropylene -Smooth ABS	ASTM D1000 20 minute dwell 24 hour dwell 20 minute dwell 24 hour dwell 20 minute dwell 24 hour dwell	63 N/100 mm (58 oz/inch) 73 N/100 mm (66 oz/inch) 58 N/100 mm (53 oz/inch) 66 N/100 mm (60 oz/inch) 69 N/100 mm (63 oz/inch) 71 N/100 mm (65 oz/inch)
Tack	ASTM D2979 Polyken™ Probe Tack (1 second dwell)	161 g (5.6 oz)

Performance properties:

Performance properties tested on B-7651 printed with black ribbons R7964, R6000 and R4900 using the Bradyprinter™ THT Model 600X-Plus thermal transfer printer. Printed samples were laminated to aluminium and allowed to dwell 24 hours before exposure to the indicated environments. Unless noted, results are the same for the tested ribbons.

PROPERTIES	TEST METHOD	TYPICAL RESULTS
High Service Temperature	30 days at 120°C (248°F)	no visible effect
Low Service Temperature	30 days at -40°C (-40°F)	no visible effect

Humidity Resistance	30 days at 37°C (99°F), 95% R.H.	no visible effect
UV Light Resistance	30 days in UV Light Chamber	no visible effect
Weatherability	ASTM G53 30 days in QUV	no visible effect
Abrasion Resistance	Fed. Std. 191A, Method 5306 Taber Abraser, CS-10 grinding wheels, 250 g/arm, 100 cycles	R-4900: moderate print removal but print remains legible R-6000: no visible effect R-7964: slight print removal but print remains legible

Chemical resistance:

Samples were printed with black ribbons R7964, R6000 Halogen Free, R6000 and R4900 using the BradyPrinter™ THT Model 600X-Plus thermal transfer printer. Printed samples were laminated to aluminium and allowed to dwell 24 hours prior to testing. Test conducted at room temperature except where noted. Testing consisted of 5 cycles of 10 minute immersions in the specified test fluid followed by a 30 minute recovery period. After final immersion the samples were rubbed 10 times with cotton swabs saturated with test fluid.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	R4900	R6000 / R6000 Halogen Free	R7964
Isopropanol	NVE without rub, print gone after rub	NVE without rub, print gone after rub	NVE without rub, print gone after rub
Iso-octane	No visible effect	No visible effect	No visible effect
N-hexane	No visible effect	No visible effect	No visible effect
Toluene	Severe smear	Print gone	Severe smear
Deionized water	No visible effect	No visible effect	No visible effect
10% NaCl	No visible effect	No visible effect	No visible effect
Acetone	Severe smear	Severe smear	Severe smear
Methyl-Ethyl-Ketone (MEK)	Print gone	Print gone	Print gone
10% H ₂ SO ₄	No visible effect	No visible effect	No visible effect
Alcohol Mix*	No visible effect	No visible effect	No visible effect
5% NaOH	Moderate fading	Moderate fading	Moderate fading
Skydrol® 500B-4	Severe smear	Severe smear	Severe smear
Ethanol	No visible effect	No visible effect	No visible effect
ASTM#3 oil	No visible effect	No visible effect	Slight fading
Diesel	No visible effect	No visible effect	No visible effect
Gasoline lead-free	No visible effect	No visible effect	No visible effect
LHM brake fluid	No visible effect	No visible effect	No visible effect
DOT-4 brake fluid	Print gone	Print gone	Print gone

*Alcohol mix: 50% Ethyl alcohol, 30% Methyl alcohol, 20% deionized water

SHELF LIFE:

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.

Trademarks:

ASTM: American Society for Testing and Materials (U.S.A.)
 BradyPrinter™ is a trademark of Brady Worldwide, Inc.
 Polyken™ is a trademark of Testing Machines Inc.
 Skydrol® is a registered trademark of the Monsanto Company

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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