

BRADY B-7543 THERMAL TRANSFER PRINTABLE GLOSSY WHITE POLYESTER

TDS No. B-7543
Effective Date: 04-Oct-2011

Description:

GENERAL

Brady B-7543 is a glossy white polyester with a permanent acrylic pressure sensitive adhesive and a topcoat specially formulated for thermal transfer printing.

SPECIAL FEATURES

B-7543 gives excellent adhesion to low surface energy surfaces such as polypropylene and ABS, as well as on most powder coatings.

RECOMMENDED RIBBONS

The recommended ribbons are R-7960, R-7961 and R-7962.

ROHS Environmental Compliance

Brady B-7543 is RoHS compliant using EU Directive 2002/95/EC.

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	PSTC-33 -Substrate -Adhesive -Total	0.050 mm 0.020 mm 0.070 mm
Adhesion to:	ASTM D 1000	
-Stainless Steel	20 minute dwell 24 hours dwell	59 N/100 mm 79 N/100 mm
-Polypropylene	20 minute dwell 24 hours dwell	57 N/100 mm 68 N/100 mm
-Textured ABS	20 minute dwell 24 hours dwell	22 N/100 mm 27 N/100 mm
-Smooth ABS	20 minute dwell 24 hours dwell	66 N/100 mm 76 N/100 mm
-Powder coated	20 minute dwell 24 hours dwell	39 N/100 mm 45 N/100 mm
Drop shear	PSTC-7	38 hours
Tack	ASTM D 2979 Polyken™ Probe Tack 1 second dwell	225 g
Performance properties tested on B-7543 printed with R-7960, R-7961 and R-7962 ribbons using the Bradyprinter™ THT Model 300X Plus thermal transfer printer. Printed samples were laminated to aluminium and allowed to dwell 24 hours before exposure to the indicated environments.		

PERFORMANCE PROPERTIES	TEST METHOD	TYPICAL RESULTS
High service temperature	30 days at 120°C	No visible effect, moderate yellowing after 30 days at 140°C but label remains functional
Low service temperature	30 days at -40°C	No visible effect
Minimum application temperature		5°C
Abrasion resistance	Method 5306 of US Fed. Test Method Std. No.191A CS 10 wheels R-7960 250 g/arm 500 g/arm R-7961 250 g/arm 500 g/arm R-7962 250 g/arm 500 g/arm	Severe Fading Text gone Moderate fading Severe fading No visible effect Slight/Moderate fading
Humidity Resistance	30 days at 38°C and 95% R.H.	No visible effect

UV Light Resistance	30 days in UV-light chamber	No visible effect
Weatherability	ASTM G 53 30 days in QUV	No visible effect

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
Samples printed with thermal transfer ribbons R-7960, R-7961 and R-7962 using BradyPrinter™300X Plus. Samples laminated to aluminium panels and allowed to dwell for 24 hours prior to testing. Tests conducted at room temperature. Testing consisted of 5 cycles of 10 minute immersions in the specified test fluid, followed by 30 minute recovery periods. After final immersion, samples rubbed 10 times with cotton swab saturated with test fluid.	

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	PRINTING WITH R-7960 EFFECT AFTER RUBBING	PRINTING WITH R-7961 EFFECT AFTER RUBBING	PRINTING WITH R-7962 EFFECT AFTER RUBBING
Petrol	No visible effect w/o rub, text gone w/ rub	No visible effect w/o rub, text gone w/ rub	No visible effect w/o rub, no visible effect w/rub
Alcohol mixture	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, text gone w/ rub
Toluene	Severe fading w/o rub, text gone w/ rub	No visible effect w/o rub, text gone w/ rub	No visible effect w/o rub, no visible effect w/ rub
Methyl Ethyl Ketone	Severe fading w/o rub, text gone w/ rub	Text gone w/o rub	No visible effect w/o rub, text gone w/rub
1,1,1 Trichloroethane	Slight fading w/o rub, text gone w/ rub	No visible effect w/o rub, text gone w/ rub	No visible effect w/o rub, no visible effect w/ rub
Isopropanole alcohol	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, text gone w/ rub	No visible effect w/o rub, text gone w/ rub
Acetone	Moderate fading w/o rub, text gone w/ rub	Text gone w/o rub	No visible effect w/o rub, text gone w/ rub
Diesel	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub
n-Hexane	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub
Iso-octane	No visible effect w/ rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub
Sulfuric acid solution (10%)	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub
Sodium Chloride (10%)	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub
Skydrol®	Text damaged severely w/o rub	Text damaged severely w/o rub	Text damaged severely w/o rub
Water	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub	No visible effect w/o rub, no visible effect w/ rub

* Alcohol mixture is a mixture of 50% ethanol, 30% methanol and 20% distilled water.

w/ rub = with rub

w/o rub = without rub

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:

Polyken™ is a trademark of Testing Machines Inc.

BradyPrinter™ is a trademark of Brady Worldwide, Inc.

Skydrol® is a registered trademark of the Monsanto Company

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

PSTC: Pressure Sensitive Tape Council (U.S.A.)

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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