

BRADY B-7546 THERMAL TRANSFER PRINTABLE TAMPER EVIDENT GLOSSY WHITE POLYESTER

TDS No. B-7546
Effective Date: 05/29/2015

Description:

GENERAL

B-7546 is a glossy white polyester film with a permanent acrylic pressure sensitive adhesive, and a topcoat specifically formulated for thermal transfer printing.

APPLICATIONS

B-7546 is designed for application such as rating and serial plates that require both high performance and protection against removal.

SPECIAL FEATURES

The material leaves a VOID footprint if removed. Recommended 24 hour room temperature dwell before removal for full tamper evident performance.

The material gives an extremely high resolution printing when using Brady Series R-7962 and R-4900.

RECOMMENDED RIBBONS

Recommended ribbon is R-6010 for the TLS2200 thermal transfer printer.
Brady Series R6000 Halogen Free

ROHS Environmental Compliance

Brady B-7546 is RoHS compliant to RoHS directive 2011/65/EU

Details:

Labels printed on BP-THT-600X+ with thermal transfer ribbon R-7962 and R-4900

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D 1000 - Substrate - Adhesive - Total	0.050 mm (0.0020 inch) 0.030 mm (0.0012 inch) 0.080 mm (0.0032 inch)
Adhesion to:	ASTM D 1000	
- Stainless Steel	24 hour dwell	59 N/100 mm (54 oz/inch)
- Smooth ABS	24 hour dwell	51 N/100 mm (47 oz/inch)
- Polyethylene	24 hour dwell	33 N/100 mm (31 oz/inch)

Performance properties tested on B-7546 printed with Series R-4900, R6000 Halogen Free and R-7962 thermal transfer ribbons. Printed samples of B-7546 were laminated to aluminium before exposure to the indicated environmental condition.

PERFORMANCE PROPERTIES	TEST METHOD	TYPICAL RESULTS
High Service Temperature	30 days at 100°C (212°F)	No visible effect
Low Service Temperature	30 days at -20°C (68°F)	No visible effect
Humidity Resistance	30 days at 38°C (100°F) and 95% R.H.	No visible effect
UV Light Resistance	30 days in UV light chamber	No visible effect
Weatherability	30 days in Q.U.V. (ASTM G 53)	No visible effect
Abrasion Resistance	Method 5306 US Fed. Test 191A 100 Cycles R-7962 (CS 10, 250g/arm) R-4900 (CS 10, 250g/arm)	No visible effect Text faded but still legible

The tamper evident VOID pattern of B-7546 was retained after exposure to all of the listed conditions.

PERFORMANCE PROPERTIES	CHEMICAL RESISTANCE
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Samples printed with Series R-7962, R-4900 and R6000 Halogen Free thermal transfer ribbons. Samples laminated to aluminum panels and allowed to dwell 24 hours prior to testing. Test 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	R-4900	R-6000 Halogen Free	R-7962
Water	N.V.E.	N.V.E.	N.V.E.	N.V.E.
Isopropanol	N.V.E.	N.V.E.	N.V.E.	N.V.E. w/o rub S.F. w/ rubbing
Acetone	SL. Flaking	S.F. w/o rubbing	N.V.E. w/o rub S.F. w/rubbing	N.V.E. w/o rubbing S.F. w/ rubbing
Methyl Ethyl Ketone	SL. Flaking	S.F. w/o rubbing	N.V.E. w/o rub, S.F. w/ rubbing	N.V.E. w/o rubbing S.F. w/ rubbing
Toluene	N.V.E.	N.V.E. w/o rubbing S.F. w/ rubbing	N.V.E w/o rubbing, S.F. w/ rubbing	N.V.E. w/o rubbing SL.F. w/ rubbing
1,1,1-trichloroethane	N.V.E.	N.V.E. w/o rubbing S.F. w/ rubbing	Obsolete	N.V.E.
Ethanol	N.V.E.	N.V.E.	N.V.E.	N.V.E. w/o rubbing S.F. w/ rubbing
Alcoholic Mixture*	N.V.E.	N.V.E.	N.V.E.	N.V.E.
Diesel	N.V.E.	N.V.E.	N.V.E.	N.V.E.
Gasfuel (unleaded)	N.V.E.	N.V.E. w/o rubbing S.F. w/ rubbing	N.V.E.	N.V.E.
Sulfuric Acid (10%)	N.V.E.	N.V.E.	N.V.E.	N.V.E.
Sodium Hydroxide (10%)	N.V.E.	N.V.E.	N.V.E.	N.V.E.
Natrium Chloride (10%)	N.V.E.	N.V.E.	N.V.E.	N.V.E.
Skydrol® 500 B 4	N.V.E.	S.F. w/o rubbing	N.V.E. w/o rubbing, S.F. w/rubbing	N.V.E. w/o rubbing S.F. w/ rubbing
Mineral Oil	N.V.E.	N.V.E.	N.V.E.	N.V.E.
Motor Oil (Power Ultralub 14W/40)	N.V.E.	N.V.E.	Not Tested	N.V.E.
n-Hexane	N.V.E.	N.V.E.	Not Tested	N.V.E.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	EFFECT TO LABEL STOCK	R-4900	R-7962
Water	N.V.E.	N.V.E.	N.V.E.
Isopropanol	N.V.E.	N.V.E.	N.V.E. w/o rub S.F. w/ rubbing
Acetone	SL. Flaking	S.F. w/o rubbing	N.V.E. w/o rubbing S.F. w/ rubbing
Methyl Ethyl Ketone	SL. Flaking	S.F. w/o rubbing	N.V.E. w/o rubbing S.F. w/ rubbing
Toluene	N.V.E.	N.V.E. w/o rubbing S.F. w/ rubbing	N.V.E. w/o rubbing SL.F. w/ rubbing
1,1,1-trichloroethane	N.V.E.	N.V.E. w/o rubbing S.F. w/ rubbing	N.V.E.
Ethanol	N.V.E.	N.V.E.	N.V.E. w/o rubbing S.F. w/ rubbing
Alcoholic Mixture*	N.V.E.	N.V.E.	N.V.E.
Diesel	N.V.E.	N.V.E.	N.V.E.
Gasfuel (unleaded)	N.V.E.	N.V.E. w/o rubbing S.F. w/ rubbing	N.V.E.
Sulfuric Acid (10%)	N.V.E.	N.V.E.	N.V.E.
Sodium Hydroxide (10%)	N.V.E.	N.V.E.	N.V.E.
Natrium Chloride (10%)	N.V.E.	N.V.E.	N.V.E.

Skydrol® 500 B 4	N.V.E.	S.F. w/o rubbing	N.V.E. w/o rubbing S.F. w/ rubbing
Mineral Oil	N.V.E.	N.V.E.	N.V.E.
Motor Oil (Power Ultralub 14W/40)	N.V.E.	N.V.E.	N.V.E.
n-Hexane	N.V.E.	N.V.E.	N.V.E.

N.V.E.: No Visible Effect

SL.F.: Slight Fading

S.F.: Severe Fading

w/o: Without rubbing

w/: With rubbing

* Alcoholic Mixture is a mixture of 50% Methanol, 30% Ethanol and 20% distilled water.

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

Fed. Spec.: United States Federal Specification (U.S.A.)

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

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