

BRADY B-7591 VINYL FILM WITH PERMANENT ADHESIVE

TDS No. B-7591
Effective Date: 10/04/2011

Description:

PRINT TECHNOLOGY: thermal transfer
MATERIAL TYPE: vinyl
FINISH: glossy white
ADHESIVE: permanent acrylic pressure sensitive adhesive

APPLICATIONS:

B-7591 is used for indoor applications such as Warehouse Racking identification.

MINIMUM APPLICATION TEMPERATURE:

10°C (50°F)

AVERAGE OUTDOOR DURABILITY:

2 years (Average expected outdoor life of product will depend on user definition of failure, climatic conditions, mounting techniques and material color.)

ROHS Environmental Compliance

Brady B-7591 is RoHS compliant using EU Directive 2002/95/EC

Details:

Physical properties

PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	ASTM D1000 -Substrate -Adhesive -Total	0.082 mm (0.003 inch) 0.020 mm (0.001 inch) 0.102 mm (0.004 inch)
Adhesion to: -Stainless Steel	ASTM D1000 20 minute dwell 24 hour dwell 72 hour dwell	26 N/100 mm (24 oz/inch) 36 N/100 mm (33 oz/inch) 36 N/100 mm (33 oz/inch)
-Polypropylene	20 minute dwell 24 hour dwell 72 hour dwell	25 N/100 mm (23 oz/inch) 25 N/100 mm (23 oz/inch) 26 N/100 mm (24 oz/inch)
-Smooth ABS	20 minute dwell 24 hour dwell 72 hour dwell	23 N/100 mm (21 oz/inch) 40 N/100 mm (36 oz/inch) 40 N/100 mm (36 oz/inch)
Tack	ASTM D2979 Polyken™ Probe Tack (1 second dwell)	180 g (6 oz)

Performance properties

Performance properties tested on B-7591 printed with the black ribbon R-7968 using the Minimark™ 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 METHODS	TYPICAL RESULTS
High Service Temperature	30 days at 70°C (158°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	60 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 (no dwell)	Severe print removal. Print barely legible.

Chemical resistance

Samples were printed with the black ribbon R-7968 using the Minimark™ 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
Isopropanol	Print gone
Iso-octane	No visible effect
N-hexane	No visible effect
Toluene	Label no longer functional
1,1,1-trichloroethane	Label no longer functional
Deionized water	No visible effect
10% NaCl	No visible effect
Acetone	Label no longer functional
Methyl-Ethyl-Ketone (MEK)	Label no longer functional
10% H ₂ SO ₄	No visible effect
Alcohol Mix*	No visible effect
5% NaOH	No visible effect
Skydrol® 500B-4	Label dissolves
Ethanol	Slight print fading
ASTM#3 oil	Print gone
Diesel	Slight print fading
Gasoline lead-free	Print gone. Edge lifting

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

Trademarks:

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

MINIMARK™ 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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