

B-6607 DIGITALLY PRINTED PLASTIC LABELS

TDS No. B-6607
Effective Date: 11/07/2017

Description:

GENERAL

Print Technology: Digital Printing
Materials Type: Vinyl Label with PET Overlaminates
Finish: Glossy

APPLICATIONS

Outdoor marking on metal based pipes to a minimum of 3/4" (diameter)

Details:

PHYSICAL PROPERTIES	TEST METHOD	TYPICAL RESULTS
Thickness	ASTM D1000 - Total	0.150 mm (6 mil)
Peel Adhesion to:	ASTM D1000	
- Stainless Steel	- 20 minute dwell - 24 hour dwell	8 N/in (32 N/100mm) 10 N/in (39 N/100mm)
- PU coated stainless steel	- 20 minute dwell - 24 hour dwell	4 N/in (16 N/100mm) 5 N/in (20 N/100mm)
Abrasion Resistance	Taber Abraser, CS-17 grinding wheels, 250g load	Legibility remained after 2000 cycles

Printed samples were wrapped around 3/4" diameter plastic pipes and allowed to dwell 24 hours at standard temperature (25degC) before exposure to the indicated environment.

(Note: Testing in weatherometer and UV chamber were done on flat panels due to machine limitations)

PROPERTIES	TEST METHOD	TYPICAL RESULTS
Weathering Resistance	ASTM G154 (in Xenon Arc Weatherometer) 1000 hours exposure	Print remained legible and label remained functional
UV Resistance	1000 hours exposure in UV chamber	Print remained legible and label remained functional
Humidity Resistance	37degC/ 95%RH 1000 hours exposure in humidity chamber	Print remained legible and label remained functional
Low Service Temperature Resistance	-10degC 1000 hours exposure in freezer	Print remained legible and label remained functional
High Service Temperature Resistance	70degC 1000 hours exposure in oven	Print remained legible and label remained functional
	120degC >2weeks exposure in oven	Print remained legible and label remained functional

Samples were adhered onto stainless steel panels and allowed to dwell 24 hours prior to testing. Testing was conducted at room temperature and consisted of 15 minute immersion in specified test fluid. After immersion, the samples were removed from the test fluid and the printed image and degree of wrapping were to be observed. A rating scale of 1 – 5 is used in the table below to show the print quality of the samples tested upon exposure to different chemicals.

CHEMICAL REAGENT	EFFECTS TO MATERIAL	EFFECT TO PRINTED IMAGE
10% Sodium Hydroxide	No visible effect to material	1

10% Sulphuric Acid	No visible effect to material	1
Water	No visible effect to material	1
Salt water (20%wt)	No visible effect to material	1
Hexane	No visible effect to material	1
Isopropyl alcohol	No visible effect to material	1
Ethanol	No visible effect to material	1
Acetone	No visible effect to material	1
Diesel oil (Esso)	No visible effect to material	1
SAE 40 (Shell)	No visible effect to material	1

Rating scale:

- 1 = No visible effect**
- 2 = Slight print removal**
- 3 = Moderate print removal**
- 4 = Severe print removal**
- 5 = Complete print removal**

Shelf Life:

Shelf life is 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. It remains the responsibility of the user to assess the risk of using this product. We encourage customers to develop testing protocols that will qualify a product's fitness for use in their actual application.

Trademarks:

ASTM: American Society for Testing and Materials (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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