

**B-6606 DIGITALLY PRINTED PLASTIC LABELS**

TDS No. B-6606  
Effective Date: 01/16/2012

**Description:**

**GENERAL**

**Print Technology:** Digital Printing

**Materials Type:** Vinyl Label with Vinyl 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	0.200 mm (8 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 (using 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

PERFORMANCE PROPERTY	CHEMICAL RESISTANCE
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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
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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	Material degraded	5
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**

**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.

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