Technical Data Sheet

BRADY B-6610 DIGITALLY PRINTED PIPEMARKER

TDS No. B-6610
Effective Date: 04/06/2016

Description:
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GENERAL
Print Technology: Inkjet printing
Materials Type: PET label with PET overlaminate
Finish: Glossy

APPLICATIONS
Outdoor marking on metal based pipes to a minimum of 1” (diameter)

Product is available in coil-around format with a flap securing tape.

COMPLIANCE
Chloride free
Asbestos - Brady and its suppliers do not intentionally add asbestos to the manufacturing of B-6610. However, we cannot categorically state that B-6610 is "free" as we do not routinely check B-6610 for this substance.

Details:
Details:

PHYSICAL PROPERTIES	TEST METHOD	TYPICAL RESULTS
Thickness	ASTM D1000 Total	0.211mm (8.5mil)
Abrasion Resistance	Taber Abraser, CS-17 grinding wheels, 250g load	Legibility remained after 4000cycles
Water Immersion Test	7 days water immersion	No visible effect

Printed samples were wrapped around 1” diameter metal pipes and allowed to dwell 24hrs at standard temperature (25ºC) 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 G155 4000hours exposure in Xenon Arc Weatherometer	Print remained legible and label remained functional.
UV Resistance	ASTM G154 3000hours exposure in UV chamber	Print remained legible and label remained functional.
Humidity Resistance	37ºC/95%RH 1000hours exposure in humidity chamber	Print remained legible and label remained functional
Low Service Temperature Resistance	-40ºC 1000hours exposure in freezer	Print remained legible and label remained functional

PROPERTIES	TEST METHOD	TYPICAL RESULTS
High Service Temperature Resistance	100ºC 1000hours exposure in oven	Print remained legible and label remained functional
	110ºC 1000hours exposure in oven	Print remained legible and label remained functional

	120ºC 1000hours exposure in oven	Print remained legible and label remained functional.
	125ºC 1000hours exposure in oven	Print remained legible and label remained functional.

Note: For weathering resistance testing, 800 hours of testing is approximately 1year. This is based on laboratory testing result in controlled conditions. Outdoor durability takes into account many weathering factors such as rain, wind. However, due to limitation of test method and equipment, the correlation serves as a guideline (and not absolute value).

Average outdoor durability: 7 years (Average expected outdoor life of products)

Samples were adhered onto stainless steel panels and allowed to dwell 24hours prior to testing. Testing was conducted at room temperature and consisted of 15min immersion in specified test fluid. After immersion, the samples were removed from the test fluid and the printed image was rubbed 10times with a cotton swabs saturated with the test fluids. A rating scale of 1-5 is used in the table below to show the print quality of the samples tested upon exposure to the different chemicals.

CHEMICAL REAGENT	SUBJECTIVE OBSERVATION OF VISUAL CHANGE		
	EFFECTS TO MATERIAL	EFFECTS TO PRINTED IMAGE	
		WITHOUT RUB	WITH RUB
10% Sodium Hydroxide	No visible effect to material	1	1
10% Sulphuric Acid	No visible effect to material	1	1
Water	No visible effect to material	1	1
Salt Water (20%wt)	No visible effect to material	1	1
Hexane	No visible effect to material	1	1
Isopropyl Alcohol	No visible effect to material	1	1
Ethanol	No visible effect to material	1	1
Acetone	No visible effect to material	1	1
Diesel Oil (Esso)	No visible effect to material	1	1
SAE40 (Shell)	No visible effect to material	1	1

Rating scale:
1 = No visible effect
2 = Slight print removal
3 = Moderate print removal
4 = Severe print removal
5 = Complete print removal

Product testing, customer feedback, and history of similar products, support a customer performance expectation of at least***one year from the date of receipt*** for this product as long as this product is stored in its original packaging in an environment *below 80 degrees F 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.)

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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