

White Glossy Weather Resistant Label Stock

TDS No. B-8591
Effective Date: 09/02/2016

Description:

DESCRIPTION

B8591 is a white glossy topcoated film coated with an acrylic pressure sensitive adhesive, laminated to a silicone release liner.

FEATURES

B8591 is a weather resistant label designed for long term outdoor UV exposure applications.

Recommended Ribbons

Brady RR122 series

Brady R6600 series

Details:

PHYSICAL PROPERTIES	TEST METHODS	AVERAGE RESULTS
Thickness	Substrate Adhesive Total	0.0023 inch (0.0584 mm) 0.0020 inch (0.0508 mm) 0.0043 inch (1.0920mm)
Adhesion to: -Stainless Steel	20 minute dwell 24 hour dwell	64 oz/in (17.8 N/25mm) 67 oz/in (18.6 N/25mm)
Tack	Polyken™ Probe Tack 1 second dwell	69.7oz (1975g)
Dielectric Strength	0.25" probe; 500V/s	6690 Volts

B8591 is not recommended for low surface energy surfaces such as polyethylene and polypropylene.

Performance properties tested on B8591 printed with Series RR122, ribbon. Printed samples were laminated to aluminum and allowed to dwell 24 hours before exposure to the indicated environments.

PHYSICAL PROPERTIES	TEST METHODS	TYPICAL RESULTS
High Service Temperature	30 days at various temperatures	No visible effect to label at 110°C. Slight discoloration at 120°C; moderate discoloration at 145°C. Cracking on the print block started at 130°C but label is still functional
Short Term High Service Temperature	5 minutes at various temperatures	No visible effect to label at 180°C. Slight label shrinkage at 200°C; label is functional. Label becomes nonfunctional at 230°C due to label shrinkage.
Low Service Temperature	30 days at -70°C	No Visible Effect
Humidity Resistance	30 days at 100°F (37°C) and 95% relative humidity.	No Visible Effect

Weatherability	ASTM G155, Cycle 1 in Xenon Arc Weatherometer, 1 year (8760 hours)	No Visible Effect
UV Resistance	ASTM G154 cycle 3, 3000 hours	No Visible Effect
Salt Fog Resistance	30 days in 5% salt fog solution chamber	No Visible Effect
Abrasion Resistance	Taber Abraser, CS-10 grinding wheels, 250 g/arm	Image faded, but functional after 50 revolutions

Samples were printed with Series RR122 ribbon. Samples were laminated to aluminum panels and allowed to dwell 24 hours prior to testing. Testing was conducted at room temperature and consisted of 30 minute immersions in the specified test fluid. After immersion, the samples were removed from the test fluid and the printed image rubbed 10 times with a cotton swab saturated with the test fluid. The rating scale below shows the effect to the quality of the print for each sample.

CHEMICAL REAGENT	EFFECT TO LABEL STOCK	EFFECTS TO PRINTED IMAGE	
		WITHOUT RUB	WITH RUB
Acetone	5	5	NP
Toluene	1	5	NP
Isopropyl Alcohol	5	1	4
Mineral Spirits	1	1	5
Gasoline	1	4	5
JP-8 Jet Fuel	1	1	5
Brake Fluid - DOT 3	1	1	3
Skydrol® 500B-4	1	4	5
SAE 20 WT Oil at 70°C	1	1	5
MIL 5606 Oil	1	1	5
Formula 409® Cleaner	1	1	1
Northwoods™ Buzz Saw Citrus Degreaser	1	1	1
Deionized Water	1	1	1

Rating Scale:

- 1= no visible effect
- 2= slight smear or print removal, detectable but minimal smear
- 3= moderate smear or print removal (print still legible)
- 4= severe smear or print removal (print illegible or just barely legible)
- 5= complete print and/or topcoat removal
- NP= print removed prior to rub

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S. I.: International System of Units
SAE: Society of Automotive Engineers (U.S.A.)
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Note: All values shown are averages and should not be used for specification purposes.
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