BRADY
WHEN PERFORMANCE MATTERS MOST™

Technical Data Sheet

B-8593 ENGRAVED PLATE REPLACEMENT (EPREP) LABELSTOCK

TDS No. B-8593
Effective Date: 01/12/2012

Description:
GENERAL
Print Technology: Thermal Transfer (THT)
Materials Type: Polyester
Finish: Satin/ Glossy
Adhesive: Acrylic Pressure Sensitive
Colours: Silver, White, Black, Green, Red, Yellow

RECOMMENDED RIBBONS
Black ribbons Brady Series R4900 and R6000 are preferred.
Alternative black ribbons are Brady Series R7961 and R7964.
White ribbon Brady R4400 series may be used on black, red and green labels.

Details:

PHYSICAL PROPERTIES	TEST METHOD	TYPICAL RESULTS
Thickness	ASTM D1000 - Facestock - Foam tape - Total	 0.23 mm 0.50 mm 0.73 mm
Peel Adhesion to: - Stainless Steel	ASTM D1000 24 hour dwell	 > 100 N/100mm (150 oz/in) (Residue was observed upon peel due to tearing of foam)
Drop Shear	PSTC-7 24 hour dwell	45 hours
Tack	ASTM D2979 1 second dwell	990 g

Environmental resistance performance properties tested on B-8593 (silver) were printed with Series R4900 and R6000 ribbons using BradyPrinterä THT Model BP-PR300 Thermal Transfer printer. Printed samples were laminated to aluminum and allowed to dwell 24 hours before exposure to the indicated environment. Unless noted, results are the same for both ribbons.

PROPERTIES	TEST METHOD	TYPICAL RESULTS
Long Term High Service Temperature	1000 hours at 100degC	No visible effect. No functional defects observed.
UV Resistance	ASTM G154 1000 hours	Slight loss in gloss but no functional defects observed.
Weathering resistance	ASTM G155 1000 hours	Slight loss in gloss but no functional defects observed.

Samples were printed with various ribbons indicated in the table using a BradyPrinterä THT Model BP-PR300 thermal transfer printer. Samples were laminated to aluminum panels and allowed to dwell 24 hours prior to testing. Testing was conducted at room temperature and consisted of rubbing the printed images 10 cycles with a cotton swab saturated with the test fluid. 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	B-8593 (silver)		B-8593 (white)	
	R4900	R6000	R4900	R6000
IPA	2	1	2-3	1
Acetone	5	4-5	5	5
MEK	5	3-4	5	5
Hexane	1	1	1	1
Heptane	1	1	2	1
Ethanol	2	2	2	1
H2O	1	1	1	1

Diesel	1	1	1	1
10% NaCl	1	1	1	1
10% H2SO4	1	1	1	1
10% NaOH	1	1	1	1
Gasoline	2	1-2	2	1

Chemical	B-8593 (red, green, yellow, black) printed with ribbons indicated below:					
	Red		Green		Yellow	Black
	R4400	R6000	R4400	R6000	R6000	R4400
IPA	2	1	1-2	1	1	2
Acetone	5	4-5	5	4-5	4-5	5
MEK	5	5	5	5	5	5
Hexane	1	1	1	1	1	1
Heptane	1	1	1	1	1	1
Ethanol	2	1	1-2	1	1	1-2
H2O	1	1	1	1	1	1
Diesel	1	1	1	1	1	1
10% NaCl	1	1	1	1	1	1
10% H2SO4	1	1	1	1	1	1
10% NaOH	1	1	1	1	1	1
Gasoline	2	1	2	1	1	2

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

Trademarks:
ANSI: American National Standards Institute (U.S.A.)
PSTC: Pressure Sensitive Tape Council (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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