

TDS No. B-7643

Effective Date: 09-Oct-2007

**Description:**

Brady B-7643 is a zero-halogen high density, thermoplastic polyether polyurethane cable marker. Available in white, red (Pantone 032), yellow (Pantone 109), orange and black.

The cable marker is thermal transfer printable with the Brady series R-6000 and R-4400W ribbons. Alternative ribbons are the Brady series R-4900, R-7961 and R-7962.

B-7643 is also available for TLS2200® using thermal transfer ribbon R-6010 and R-4410series.

**ROHS Environmental Compliance**

Brady B-7643 is RoHS compliant using EU Directive 2002/95/EC.

**Physical Properties**

PHYSICAL PROPERTIES TEST METHODS		AVERAGE RESULTS
Thickness	Substrate	450 µm ± 10 µm
Puncture resistance	MIL. Spec. 101C2065	325 N
Tear resistance	Elmendorf ASTM D 1922	24 N
	DIN Tear test DIN53363	250 N
Graves tear test	Graves tear test ASTM D1004	125 N
Tensile Strength UTL	DIN 53455	20 kN/m
Tensile Strength EL	DIN 53455	200%

**Performance Properties**

PERFORMANCE PROPERTIES	TEST METHOD	TYPICAL RESULTS
High service temperature	30 days at 90°C (193°F)	No visible effect
Low service temperature	30 days at -40°C (-40°F)	No visible effect
Humidity resistance	30 days at 37°C(100°F),95% R.H.	No visible effect
UV resistance	30 days in UV light chamber	White and yellow parts are discoloring but legible No visible effect on black, orange and red
Weatherability	30 days QUV (ASTM G-53)	White and yellow parts are discoloring but legible No visible effect on black, orange and red

**Chemical resistance**

Samples were thermal transfer printed with Brady Series R-6000 black ribbon and R-4400 white ribbon on the Bradyprinter™ BP-THT-Precision 300dpi printer. Testing consisted of 5 cycles of 10 minute immersions in the specified chemical reagent followed by 30 minute recovery periods. After the final 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.

CHEMICAL REAGENT	SUBSTRATE (all colours)	SUBJECTIVE OBSERVATION OF VISUAL CHANGE EFFECT TO PRINTED IMAGE			
		R6000 RIBBON		R4400W RIBBON	
		Without Rub	With rub	Without Rub	With rub
Isopropyl Alcohol	No visible effect	5	2	5	0
MEK	No visible effect	5	0	5	0
JP-4 Jet Fuel	No visible effect	5	5	5	5
Gasfuel	No visible effect	5	0	5	0
Gasoline	No visible effect	5	5	5	3
ASTM #3 Oil	No visible effect	5	4	5	0
Mil 5606 Oil	No visible effect	5	5	5	5
Deionized Water	No visible effect	5	5	5	5
SAE 15WT oil	No visible effect	5	5	5	5
Skydrol®500B-4	No visible effect	5	0	3	0
10% Sulfuric Acid Solution	No visible effect	5	5	5	5
10% NaCl Salt Solution	No visible effect	5	5	5	5
Alcohol mix*	No visible effect	5	5	5	0

\* Alcohol mixture: 50% Ethyl alcohol, 30% Methyl Alcohol, 20% Distilled water

Shelf life: 2 years if stored at 27°C (80°F) and 60% R.H.

**Legend:**

- 5 = No visible effect
- 4 = Slight fading
- 3 = Fading
- 2 = Moderate fading
- 1 = Severe fading
- 0 = Print gone