



**Technical Data Sheet**

**BRADY B-7643 ZERO HALOGEN CABLE MARKERS**

TDS No. B-7643  
Effective Date: 05/11/2012

**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 R6000 Halogen Free, R6000 and R4400W ribbons. Alternative ribbons are the Brady series R4900, R7961 and R7962.

B-7643 is also available for TLS2200® using thermal transfer ribbon R6010 Halogen Free and R4410series.

**Regulatory/agency approvals**

B-7643 meets the requirements of a halogen-free material per IEC 61249-2-21 (2003-11) (statement based on review of product construction and confirmatory halogen content test run at an independent test laboratory)

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

**Details:**

**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 DIN Tear test DIN53363	24 N 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 R6000 Halogen Free, R6000 black ribbon and R4400 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 / R6000 Halogen Free 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	5	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

### Legend:

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

Product testing, customer feedback, and history of similar products, support a customer performance expectation of at least *two years from the date of receipt* for this product as long as this product is stored in its original packaging in an environment *below 80°F (27°C) 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.)  
 BradyPrinter™ is a trademark of Brady Worldwide, Inc.  
 DIN: Deutsche Industry Norm  
 S. I.: International System of Units  
 SAE: Society of Automotive Engineers (U.S.A.)  
 Skydrol® is a registered trademark of the Monsanto Company  
 TLS2200® is a registered trademark of Brady Worldwide, Inc.

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.

Product compliance information is based upon information provided by suppliers of the raw materials used by Brady to manufacture this product or based on results of testing using recognized analytical methods performed by a third party, independent laboratory. As such, Brady makes no independent representations or warranties, express or implied, and assumes no liability in connection with the use of this information.

### WARRANTY

Brady products are sold with the understanding that the buyers will test them in actual use and determine for themselves their adaptability to their intended uses. Brady warrants to the buyers that its products are free from defects in material and workmanship, but limits its obligation under this warranty to replacement of the product shown to Brady's satisfaction to have been defective at the time Brady sold it. This warranty does not extend to any persons obtaining the product from the buyers. This warranty is in lieu of any other warranty, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose, and of any other obligations or liability on Brady's part. Under no circumstances will Brady be liable for any loss, damage, expense, or consequential damages of any kind arising in connection with the use, or inability to use, Brady's products.