**Technical Data Sheet** 



## BRADY B--348 Low Smoke Zero Halogen Cable Marker

TDS No. B348 Effective Date: May 2018

## **GENERAL PRODUCT DESCRIPTION:**

**Print Technology:** Thermal Transfer **Material Type:** Low smoke, zero halogen type polyolefin wire marker **Available Colors:** white, yellow

## **APPLICATIONS:**

These cable markers are designed for wire identification in areas where low smoke zero halogen performance is needed. They are designed as a high performance wire bundle and cable identification tag for use in harsh environments.

## **RECOMMENDED RIBBON**

Brady R6000 halogen free series black ribbon

## **REGULATORY APPROVALS**

EN45545-2 requirement set R22/23, vehicle category HL3

SPECIAL FEATURES Low smoke, zero halogen

#### Details:

PROPERTIES	TEST METHODS	TYPICAL RESULTS	
Thickness		0.020 ±0.003"	
Tensile Strength	ASTM D882, 20"/min speed	>2000 psi	
Ultimate Elongation	ASTM D882, 20"/min speed	>200%	
Heat shock	ASTM D2671, 4 hours at 175°C	No visible effect to print, no cracking when bent over mandrel	
Heat aging	168 hours 150°C	Markers darken, print legible, no cracking when bent over mandrel	
Low temperature flexibility	4 hours @ -55°C	No visible effect, no cracking when bent over mandrel	
Operating temperature		-55 to 105°C	
Oxygen Index	BS EN ISO 4589-2:1999	>32%	
Smoke Density	T10.03 per BS EN 45545-2	<150	
Toxic Fume	NF X 70-100:1 and NF X 70- 100:2	<0.75	

# **Chemical resistance**

Samples were thermal transfer printed with Brady R6000 halogen free series and R6600 series black ribbons. Test was conducted at room temperature after 24 hour dwell. 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 was rubbed 20 (10 double rubs) times with a cotton swab saturated with the test fluid.

CHEMICAL	SUBJECTIVE OBSERVATION OF VISUAL CHANGE				
REAGENT	R6000 PRINTING WITHOUT RUB	R6000 PRINTING WITH RUB	R6000 PRINTING WITHOUT RUB	R6000 PRINTING WITH RUB	
Isopropyl alcohol	1	2	1	1	
Methyl Ethyl Ketone	1	5	1	2	

Gasoline	1	5	1	2
Diesel Fuel	1	4	1	1
MIL 5606 Oil	1	2	1	1
20W Oil	1	1	1	1
Skydrol ® 500 B-4	1	5	1	1
JP-8 Jet Fuel	1	1	1	1
10% NaCl	1	5	1	2
Deionized Water	1	1	1	1

Note that results are the same for white and yellow labels.

## PRINT EFFECT

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 removal

NP = print removed prior to rub

Shelf life is five years from the date of receipt for this product as long as this product is stored in its original packaging in an environment at 32-95 degrees F (0-35 degrees C). It remains the responsibility of the user to assess the risk of using this product. We encourage customers to develop 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.) Skydrol® is a registered trademark of Monsanto Company

**Note:** All values shown are typical 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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