

## 3-IN-1 SIGNS (REFLECTIVE FIREFLY® ALUMINUM SIGNS)

TDS No. B-147

Effective Date: 03/11/2006

#### **Description:**

B-147 3-IN-1 SIGNS (REFLECTIVE FIREFLY® ALUMINUM SIGNS) is a fluorescent, Diamond grade reflective, photoluminescent aluminum backed safety sign. The panels are round-cornered and punched for application to rigid surfaces.

## **Details:**

## Use:

Brady B-147 3-IN-1 SIGNS (REFLECTIVE FIREFLY® ALUMINUM SIGNS) are used as utility plant markings.

#### **Relevant Standards:**

Coefficients of Retroreflection - ASTM E-810

## **Substrate Type:**

Reflective Aluminum

# **Standard Material Colors:**

Silver, Orange and yellow

## **Standard Legend Colors:**

Black, Red

## **Illumination Characteristics**

Illumination: 21.6 lux (2 foot-candles) for 2 hrs with a 4100K cool white fluorescent lamp.

Luminance (after illumination):

10 minutes >29 mcd/m<sup>2</sup>

60 minutes > 7 mcd/m<sup>2</sup>

90 minutes > 5 mcd/m<sup>2</sup>

120 minutes >3 mcd/m<sup>2</sup>

#### Thickness (PSTC-33):

0.041" to 0.067" (1.0414 mm to 1.7018 mm)

# Abrasion Resistance (Method 5306 of U.S. Federal Test Method Std. No. 191A):

CS17 wheels, 500 g. weight Legend withstands up to 1600 cycles

## Gloss (ASTM D523):

60°-140 Gardner Units

#### **Service Temperature:**

-40°F to 175°F (-40° to 80°C)

#### **Average Outdoor Durability:**

Up to 7 years (average expected outdoor life of product will depend on user definition of failure and climatic conditions).

## **Chemical Resistance:**

REAGENT	7 DAY IMMERSION	DIP TEST	RUB TEST
30% Sulfuric Acid	NE	NE	NE
10% Sulfuric Acid	NE	NE	NE
30% Hydrochloric Acid	NE	NE	NE
10% Hydrochloric Acid	NE	NE	NE
Glacial Acetic Acid	F	F	F
5% Acetic Acid	NE	NE	NE
50% Sodium Hydroxide	F	F	NE
10% Sodium Hydroxide	F	NE	NE
10 % Ammonia	NE	NE	NE
5% Sodium Hypochlorite	NE	NE	NE
Methyl Ethyl Ketone	F	F	F
Acetone	F	F	F
Toluene	F	F	F
Methanol	F	NE	F
Isopropyl Alcohol	NE	NE	F
Heptane	NE	NE	NE
Mineral Spirits	NE	NE	NE
Turpentine	F	F	F
Kerosene	NE	NE	NE
Diesel Fuel	NE	NE	NE
Gasoline	NE	NE	F
ASTM #3 Oil	NE	NE	NE
SAE 20 Oil	NE	NE	NE
10% Sodium Chloride	NE	NE	NE
Alconox®	NE	NE	NE
Water	NE	NE	NE
Formula 409® Cleaner	NE	NE	NE

NE = No Effect

NT = Not Tested

F = Failed (affected Sample)

7 Day Immersion: Immersed in reagent for 7 days.

Dip Test: Five 10 minute dips in reagent with 30 minute recovery. Rub Test: Rubbed sample for 1 minute with swab soaked in reagent.

# **Shelf Life**

Unlimited when stored at 70°F (21°C) and 40% to 50% R.H.

#### Trademarks:

ASTM: American Society for Testing and Materials (U.S.A.) Alconox® is a registered trademark of Alconox Co.

Fed. Spec.: United States Federal Specification (U.S.A.) Firefly® is a registered trademark of Permar Systems, Inc. Formula 409® is a registered trademark of the Chlorox Company

PSTC: Pressure Sensitive Tape Council (U.S.A.) SAE: Society of Automotive Engineers (U.S.A.)

Note: All values shown are averages and should not be used for specification purposes.

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