

BRADY B-149 PHOTOLUMINESCENT FIBERGLASS SIGN

TDS No. B-149

Effective Date: 12/02/2007

Description:

Brady B-149 is a photoluminescent fiberglass sign panel with protected graphics.

Details:

<u>Use:</u>

Brady B-149 fiberglass signs are designed for use in industrial, utility, commercial, and institutional environments. Common uses include safety signs, utility signs, information signs, traffic signs, and valve tags. The sign construction is recommended for both indoor and outdoor use.

Special Properties:

The sign legends or other graphics are permanently embedded within the sign panel, allowing for use in the most severe environments.

Illumination Characteristics

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

Luminance (after illumination):

10 minutes > 11 mcd/m²

60 minutes > 3 mcd/m²

90 minutes > 2 mcd/m²

120 minutes > 1.5 mcd/m^2

Substrate Type:

Fiberglass reinforced polyester.

Standard Material Colors:

White and yellow

Standard Legend Colors:

Red, blue, green, and black are the most commonly used. Other colors are also available.

Thickness (ASTM D 1593):

0.100 in. (2.5 mm)

Tensile Strength (ASTM D 638):

17,374 psi (120 MPa)

Flexural Properties (ASTM D 790):

Yield: 32,005 psi (221 MPa)

Modulus: 1,187,647 psi (8188 MPa)

Weight (ASTM D 646):

 $0.70 \text{ lb/ft}^2 (3.5 \text{ kg/m}^2)$

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

CS-17 wheels, 1000 g wts.

Legend shows no effect at 53,000 cycles.

Substrate shows no effect at 53,000 cycles.

Gloss:

60° - 64 Gardner units

Service Temperature:

-40°F to 175°F (-40°C to 80°C)

Average Outdoor Durability:

Should not chip, fade, rust, shatter, or peel for 15 years. After 8-10 years actual outdoor vertical exposure, background colors will be moderately darkened or yellowed. Surface will show moderate fiber bloom. Header and legend graphics will still be clearly legible. Average expected life of product will depend on user's definition of failure, climatic conditions, mounting

techniques, and material color.

Chemical Resistance:

REAGENT	7 DAY IMMERSION	DIP TEST
30% Sulfuric Acid	NE	NE
10% Sulfuric Acid	NE	NE
30% HCI	NE	NE
10% HCI	NE	NE
50% NaOH	NE	NE
10% NaOH	NE	NE
Methyl Ethyl Ketone	F	NE
Acetone	F	NE
Methanol	NE	NE
IPA (Isopropanol)	NE	NE
ASTM #3 Oil	NE	NE
SAE 20 Oil	NE	NE
Alconox®	NE	NE
Toluene	NE	NE
Mineral Spirits	NE	NE
Glacial Acetic Acid	NE	NE
5% Acetic Acid	NE	NE
Diesel Fuel	NE	NE
Heptane	NE	NE
10% Ammonia	NE	NE
5% Sodium Hypochlorite	NE	NE
10% Sodium Chloride	NE	NE
Turpentine	NE	NE
Kerosene	NE	NE
Gasoline	NE	NE
Water	NE	NE
Formula 409® Cleaner	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.

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.

Formula 409® is a registered trademark of the Chlorox Company

SAE: Society of Automotive Engineers (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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