

## PRODUCT DATA SHEET



## ALUMINUM SIGNS & MARKINGS

### EverGlowHI<sup>®</sup> 150, EverGlowHI<sup>®</sup> 300 & EverGlowTL<sup>®</sup> 300

#### Description

Screen printed onto aluminum, photoluminescent signs and markers for use as components of an exit path marking system.

In the United States and Canada, electrical and non-electrical emergency lighting is required to meet minimum performance standards for up to 90 or 120 minutes after normal electrical power fails.

#### Construction - Base Material

Type	Aluminium, minimum 60% post consumer recycled content
Thickness	0.20 mm (8.00 mils)
	0.56 mm (22.4 mils)
	1.50 mm (60.0 mils)

#### Construction - Photoluminescent Material

Type	Strontium Aluminate
Excitation wavelength	240 nm - 480 nm; maximum at approximately 380 nm
Emission wavelength	400 nm - 640 nm; maximum at approximately 520 nm
Body colour	Yellowish green

#### Construction – Wear Layer

Type	Description
None	For signs or markings not subject to wear from traffic
Ceramic	Optically clear, durable wear layer; adds slip resistance

#### Construction - Adhesive

Type	Description
None	Use field applied adhesive, mechanical fasteners, or both
Solvent based acrylic	Suitable for most surfaces; accepts field applied urethane or silicone construction adhesive for use on rough surfaces
Foam Adhesive	Black, for use on rough surfaces where field applied adhesive cannot be used

#### Tests – UL 1994 (US), UL 410 and UL S572 (Canada)

EverGlow<sup>®</sup> aluminum signs and markings are tested by accredited examination facilities (Underwriters Laboratories) according to UL 1994 and UL 410. The following tests were carried out:

- Luminance ⇒ exceeds requirements for exit path markings
- Visibility ⇒ exceeds requirements at 25 feet viewing distance, 90 minutes
- Contrast ⇒ exceeds 0.5 contrast ratio in all lighting conditions
- Slip Resistance ⇒ Static coefficient of friction > 0.7 for ceramic wear layer (requirement for UL 410, SCOF > 0.45 on clean, dry test surface and test foot)

EverGlow Aluminum Strips with Ceramic Wear Layer are approved for use on stair nosings.

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### EverGlowHI<sup>®</sup> 150, EverGlowHI<sup>®</sup> 300 & EverGlowTL<sup>®</sup> 300

#### Tests – ASTM E2072 – 2010

EverGlow<sup>®</sup> HI300 and TL300 aluminum signs and markings are tested by accredited examination facilities according to ASTM E2072 - 2010. The following tests were carried out:

- Luminance ⇒ TL300 signs and markings exceed 10/90 minute luminance of 59.06/8.66 mcd/m<sup>2</sup> as required for 1 inch wide markings by ASTM E2072 -2010.
- Luminance ⇒ HI300 and TL300 signs and markings exceed 10/90 minute luminance of 30/5 mcd/m<sup>2</sup> as required by NFPA 101, IBC and IFC.
- Luminance ⇒ HI300 and TL300 signs and markings exceed 90 minute luminance of 7.5 mcd/m<sup>2</sup> as required by APTA.

EverGlow Stair Nosings and Treads, with HI150 luminance, also meet the modified luminance requirements of ASTM E2072 as required by NFPA 101, IBC and IFC above.

EverGlow HI300 and TL300 signs and markings also meet APTA luminance requirements for LLEPM (Low Location Emergency Path Markings) for passenger rail vehicles.

#### Tests – NYC MEA (New York City Materials & Equipment Acceptance Division)

EverGlow<sup>®</sup> aluminum signs and markings are tested by accredited examination facilities according to NYC RS 6-1. The following tests were carried out:

- Luminance ⇒ exceeds minimum Brightness Rating of 30-7-5 mcd/m<sup>2</sup>, measured at 10-60-90 minutes.
- Washability ⇒ exceeds requirements of ASTM D4828 – 1994 (2003).
- Radioactivity ⇒ free from radioactive additives, ASTM D3648 – 2004.
- Toxicity ⇒ meets Bombardier SMP 800-C (Rev 4, 11/1/2000) for toxic gas Generation.
- Flame Spread ⇒ meets ASTM D635 – 2003.

#### Tests – DIN 67510

EverGlow<sup>®</sup> aluminum signs and markings are tested by accredited examination facilities according to DIN 67510. The following tests were carried out:

- Luminance ⇒ up to 600% above the demands of DIN 67510-4.
- Flame resistance ⇒ flame resistance index K1.
- Radioactivity ⇒ free from radioactive additives.
- Weather resistance
- Corrosion resistance
- Chemical resistance

This material is also certified by the Germanischen Lloyd and Lloyds Register London for use on ships and marine drilling platforms.



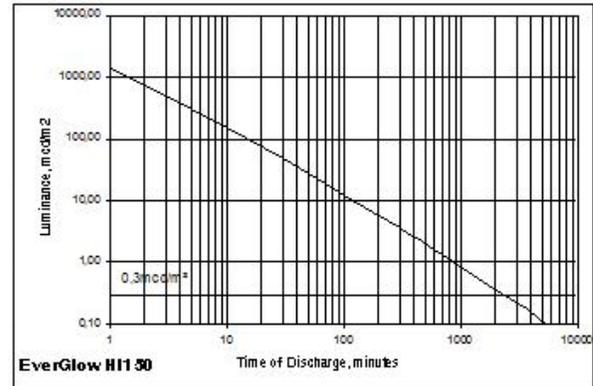
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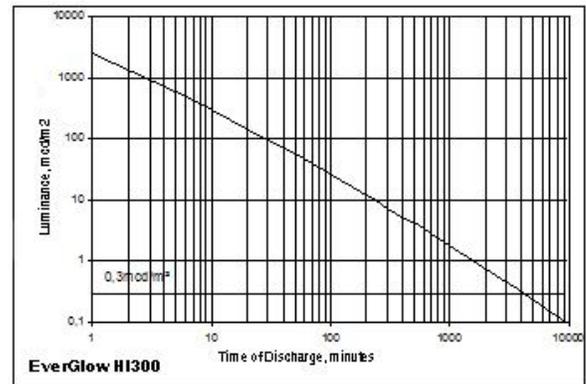
**Luminance of EverGlow HI150** (tested according to DIN 67510-1)

- Luminance after 10 minutes discharge at least **150 mcd/m<sup>2</sup>** (min: 20 mcd/m<sup>2</sup>)
- Luminance after 60 minutes discharge at least **22.5 mcd/m<sup>2</sup>** (min: 2.8 mcd/m<sup>2</sup>)
- Discharge time to 0.3 mcd/m<sup>2</sup> at least **2100 minutes (35 hrs)** (min: 340 minutes)



**Luminance of EverGlow HI300** (tested according to DIN 67510-1)

- Luminance after 10 minutes discharge at least **300 mcd/m<sup>2</sup>** (min: 20 mcd/m<sup>2</sup>)
- Luminance after 60 minutes discharge at least **45 mcd/m<sup>2</sup>** (min: 2.8 mcd/m<sup>2</sup>)
- Discharge time to 0.3 mcd/m<sup>2</sup> at least **4100 minutes (68 hrs)** (min: 340 minutes)



**Luminance of EverGlow TL300** is similar to that of HI300 when tested according to DIN 67510-1. EverGlow TL300 pigment absorbs energy more quickly than HI300 pigment, and this product is used primarily for installations with intermittent lighting or very dim (low illumination) ambient lighting. The initial luminance and the luminance measured after 10 minutes of discharge, are higher for EverGlow TL300 products.

Type	1 min	10 min	60 min	90 min	(tested according to ASTM E2072)
HI 300	100.9	55.7	14.0	8.2	mcd/m <sup>2</sup>
TL300	153.7	68.7	14.5	9.4	mcd/m <sup>2</sup>

DIN 67510 requires charging the completely discharged sample of photoluminescent material with a xenon lamp, 1,000 lux illumination (92.9 ft-candles) on the sample, for 5 minutes. Luminance, measured in mcd/m<sup>2</sup> (millicandela per square meter) is measured 10 minutes and 60 minutes after the charging lamp is turned off. Time to discharge, measured in minutes, is the time required for the sample luminance to decrease to 0.3 mcd/m<sup>2</sup>. For the dark adapted human eye, a luminance of 0.3 mcd/m<sup>2</sup> is 10 times the minimum luminance visible.