

Our Customers

Permalight®-products have proven themselves in:

- High rise buildings (WTC New York)
- Nuclear and other power stations
- Railway and subway stations
- Office buildings
- Buses and trains
- Airports
- Aircraft
- Hotels
- Industry
- Hospitals
- Military bases
- Public buildings
- Ships
- Theaters
- Underground parking garages and multi-story parking structures

Feedback from our customers:

"I am very impressed with my initial experiences with Permalight and the great Customer Service. As purchasing manager, I am fortunate to work directly with a variety of suppliers including; 3M, Avery, Alcoa, Simi Fasteners, Zap & The Wallace Co. It's refreshing to know there are companies such as Permalight, that go the extra mile to distinguish themselves as a leader. The thorough display of Customer Service by your team is very impressive."

"Your follow-up with information is exceptional. It is good to see that great customer service is practiced throughout the culture of Permalight."

*"Looks fantastic!
Let's go with it."*

Catalog request

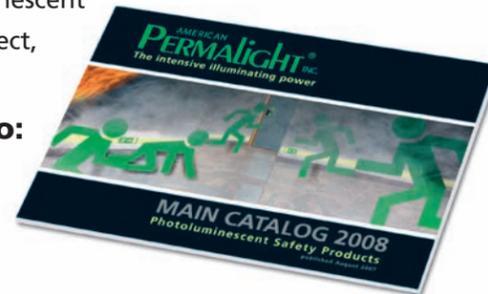
Many customers have already entrusted us with their photoluminescent egress path markings. Are you planning a new construction project, a building addition or renovation?

Call us today - we will be happy to assist you too:

Toll-free 888-737-6254

Phone 310-891-0924

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AMERICAN PERMALIGHT[®] INC

The intensive luminance



Photoluminescent Egress Path Markings

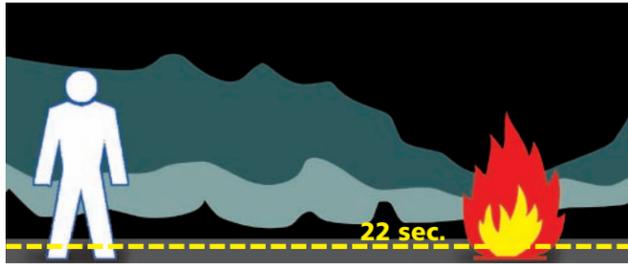
Low location lighting systems

Photoluminescent egress path markings



Power outages and resulting sudden darkness may easily lead to fear or even panic among building occupants. Protect your employees and customers by providing for unexpected emergency situations: use durable photoluminescent safety markings from Permalight®. These markings act like emergency lighting. Marked obstacles along your escape path, the egress path itself and safety installations (e.g., fire fighting equipment) are highlighted even in the dark.

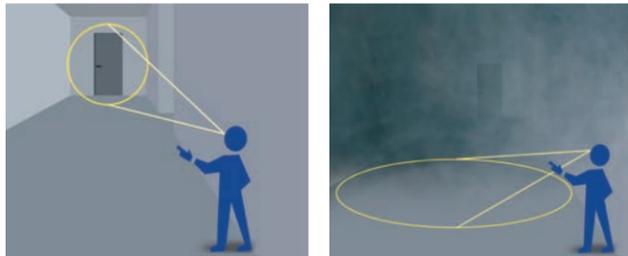
Smoke during building fires



This graphic illustrates: 22 seconds after the fire started, visibility and breathable air only remain within about 16 inches of the floor. Floor proximity egress path markings are predominantly installed either on the floor or on the wall in low location, and therefore provide orientation during smoke accumulation.

During a building fire, thick smoke forms and quickly rises to the ceiling, thus obscuring electrical lighting installed in high location. Clear visibility and air to breathe remain in floor proximity. Building occupants are expected to crawl underneath the smoke layer. A low location photoluminescent emergency evacuation system quickly guides evacuees to safety in case of a fire or power failure. These photoluminescent egress path markings are non-electrical, non-radioactive and can be installed wherever ambient lighting is present. They are energy-efficient and easy to install. With a wide range of available Permalight products, we have the right markings for every building or budget need.

Visual aids in low location



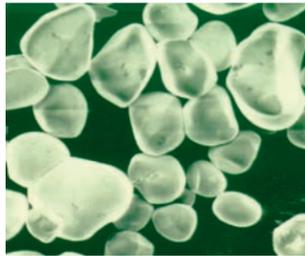
clear air

heavy smoke

Whenever visibility is severely limited by heavy smoke, building occupants try to orientate themselves by their closest surroundings. Photoluminescent egress path markings are installed along the entire path of escape and therefore fall into the field of vision of the evacuees.

This makes photoluminescent egress path markings an important life safety feature especially during building fires.

Photoluminescent technology



Photoluminescent pigments are:

- Non-toxic
- Non-radioactive
- Lead-free
- Of low flammability
- Free of phosphor

The secret to photoluminescent products are light-storing pigments. These pigments are incorporated into a range of safety products, such as paints, tapes, signs, wall and floor markers. These photoluminescent products get charged by ambient lighting and release their luminance over an extended period of time. These three factors are important for the luminance:

- Intensity of light at the place of installation (measured in lux or foot-candle)
- Type of illumination (color temperature of light, measured in Kelvin)
- Charging time/ illumination (in minutes)

While the luminance declines over time in the dark, the human eye adapts to the surrounding darkness as time progresses. The photoluminescent markings therefore remain visible for hours to come. The pigments can be re-activated endlessly, provided there is no mechanical or chemical damage.

Codes and Standards

New York City

Following the first World Trade Center New York City bomb attack in 1993, PERMALIGHT® Photoluminescent Epoxy Paint was applied to all of the World Trade Center staircase steps and handrails in 1994.

Our glowing paint markings were praised in aiding the evacuation of the building occupants during the 9/11 events. The NIST investigation of the World Trade Center disaster states that 33% of survivors in WTC1 and 17% in WTC2 reported that they were helped by photoluminescent markings*. Those positive findings eventually got Photoluminescent Markings into the Local Law 26 requirements.

*NIST - National Institute of Standards and Technology

In June 2004, New York City Council approved new Building Code Local Law 26 requiring photoluminescent signs and photoluminescent markings at exit doors and in emergency staircases of High Rise Office Buildings (75 feet or taller) and outlined details in Building Code Reference Standard RS6-1.

International Building Code - IBC

Signifying a shift toward enhanced high-rise building evacuation safety in the post 9/11 environment, the International Code Council (ICC) membership voted in 2007 to revise the International Building Code (IBC) to include the requirement to install photoluminescent path markings in the stairwells of new high-rise buildings. The 2007 Supplement to the 2006 International Building Code was modified to include the standard for photoluminescent path markings in the stairways of most new high-rise buildings over 75 feet in height, as already required in New York City.

National Fire Protection Association – NFPA

Where floor proximity egress path markings are required, they shall be installed within 18 inches of the floor and provide a visible delineation of the path of travel along the designated exit access. The markings shall be essentially continuous, except as interrupted by doorways, hallways, corridors, or other such architectural features.

American Society for Testing and Materials – ASTM

ASTM currently has 3 photoluminescence standards published.

E2072 Standard Specification for Photoluminescent (Phosphorescent) Safety Markings covers minimum photometric requirements of p/l safety markings.

E2073 Standard Test Method for Photopic Luminance of Photoluminescent (Phosphorescent) Markings describes a procedure for repeatable and reliable results for determining the photopic luminance in a testing lab.

E2030 Standard Guide for Recommended Uses of Photoluminescent (Phosphorescent) Safety Markings shows uses and gives installation recommendations for photoluminescent egress path markings.

Underwriters Laboratories – UL

Two important UL Standards are:

UL 924 for Emergency Lighting and Power Equipment, including photoluminescent exit signs, and UL1994 for Luminous Egress Path Marking Systems.

California Building Code – CABC

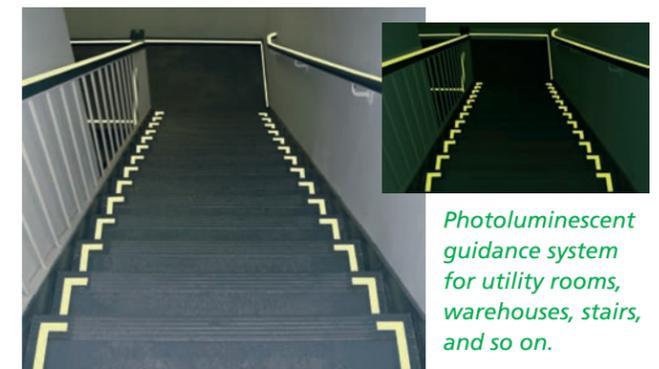
From January 2008 on, the CABC requires approved floor-level exit signs and floor-level path markings in all interior corridors of Group A, E, I, R-1, R-2 and R-4 occupancies. Path marking shall be installed at floor level or no higher than 8 inches (203 mm) above the floor level in all interior corridors. Such marking shall be continuous except as interrupted by doorways, corridors or other such architectural features in order to provide a visible delineation along the path of travel.

There are many more domestic and international codes and standards that regulate photoluminescent safety markings. Please contact us for further consultation regarding regulations that may apply to your type of occupancy.

Examples of use



Photoluminescent guidance systems for areas with public traffic



Photoluminescent guidance system for utility rooms, warehouses, stairs, and so on.