

Photoluminescent Emergency Egress Systems

The safety of all people in a facility depends on a clear egress plan and advance site preparation including clear marking of escape routes. NFPA, OSHA (1910.38) and the Joint Commission on Accreditation of Health Organizations mandate a written plan and procedures, and recommends clear marking of all exits. Other local codes (California, New York City Local Law 26, Connecticut) may demand more. The National Institute of Standards and Technology in its final report investigating the World Trade Center Disaster (NIST NCSTAR 1-7 Occupant Behavior) cited three things most mentioned by survivors as assisting them in evacuation; Co-Workers, First Responders and Photoluminescent Markings in the stairwells and corridors. Based on these findings, the 2009 IBC and NFPA require Photoluminescent Exit Path Markings in all New and Existing buildings over 75 ft in height. With minimal first cost and low annual maintenance, you can lower future liability knowing you're prepared if an emergency arises. Facility managers are also finding that PL products can offer maintenance and energy savings for years to come.

Why photoluminescent systems?

Photoluminescent Exit Signs absorb and store energy from normal ambient light in the room, then release this energy in the form of light when the room is darkened. These Exit Signs require only one hour of exposure at 54 Lux to completely recharge. Photoluminescent markings are suitable even in hazardous environments, since they will not generate an electrical spark to set off an explosion. They are non-toxic and non-radioactive for environmentally friendly operation and disposal, unlike the older Tritium signs, which are radioactive, considered hazardous material, and require expensive disposal. Since photoluminescent markings require no electricity, they have lower installation costs (no-rewiring), and no operating costs (no electricity, batteries or light bulbs). They also save on future labor costs because they don't require frequent inspection for light bulb or battery replacement to ensure operational compliance.

What to look for in photoluminescent egress systems.

When you choose your systems, look for components that have long life expectancies, high durability and are abuse resistant. Make sure they at least meet, but preferably exceed, the 2009 International Building Code and the 2009 NFPA 101 codes for photoluminescent brightness performance. Getting the best quality components for your system can give greater assurance of longer life. Compared to your system component cost, your greater costs are in specifying, ordering and installation.

Are you prepared?

Planning and preparation is the best form of prevention. A well thought-out evacuation plan combined with clear egress marking, can greatly improve the safety and well-being of your workforce in the event of an emergency. With minimal outlay and maintenance, you'll be better prepared for an emergency situation by installing dependable and low maintenance photoluminescent markings and signage. You can help ensure an orderly, efficient evacuation by putting the necessary information where it's needed in your facility.

Photoluminescent marking and sign checklist

Evaluate the visibility and usefulness of your facility's signs in both lighted and darkened conditions. Use the list below to assess the current level of marking in your facility.

- Handrails and stair treads marked and visible
- Physical obstructions outlined
- Exit, emergency exit and non-exit doors clearly marked and identified
- Evacuation route maps at strategic locations
- Egress route aisles, hallways and stairs marked clearly, even in darkness
- Low-level markings for evacuation in smoke-filled areas
- Fire fighting equipment, valves and hoses clearly marked, with directional signs located to help occupants find nearest equipment
- Emergency first aid equipment clearly marked with directional finding aids
- Electrical, chemical and physical hazards identified
- Critical shutdown procedures, switches and valves identified

Photoluminescent Emergency Exit Signs are non-radioactive, non-electric, conserve energy and require no wiring or batteries. They can be surface or ceiling mounted and comply with International Building Code, NFPA 101 Life Safety Code, OSHA 1910, and are listed to UL924.