

 ecoglo® | VISIBLY BETTER

24 HOUR STEP CONTRAST

Whether you want to define the edge of one step or provide safe and efficient access for thousands, Ecoglo has a solution.

Using advanced photoluminescent technology Ecoglo products are visible 24 hours a day.

The Ecoglo range of step edge, path making and signage products is a proven long lasting solution to the safe movement of people.

These products and systems have been installed worldwide aiding egress and preventing falls in buildings large and small.

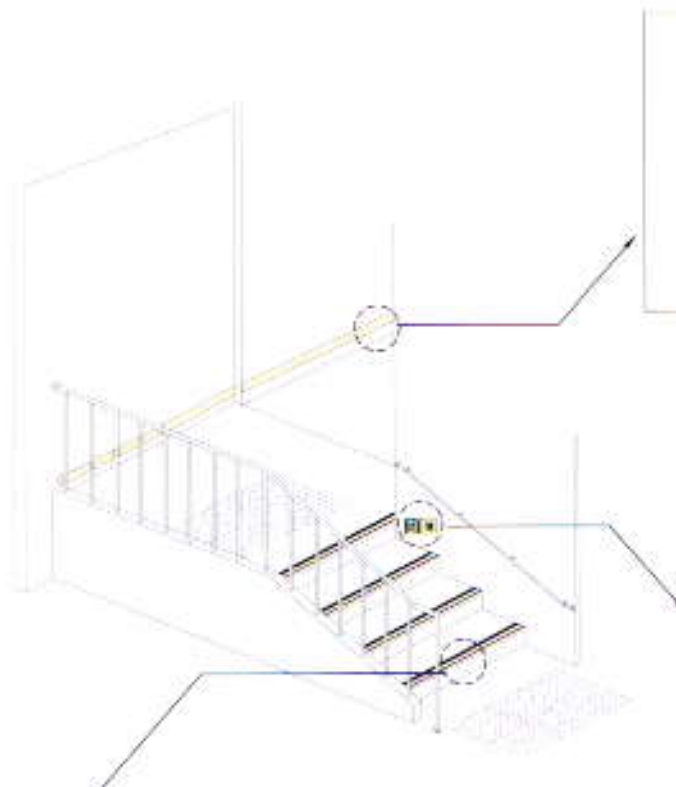


www.ecoglo.sg

You could use Ecoglo Photoluminescent Technology in most situations to comply with Singapore Fire Safety Code CI2.10.3

Demarcation Along Walls and Floors of the Exit Staircase

1. Steps: Nosing shall be applied to the horizontal leading edge of each step and shall extend for the full length of the step.
2. Perimeter demarcation lines: Stair landings and other floor areas within exit enclosures, with the exception of the sides of steps, shall be with demarcation lines on the floor or on the wall or a combination of both.
Demarcation lines shall be placed on the floor or on the wall or a combination of both:
 - > Wall mounted demarcation lines shall be placed on the wall with the bottom edge of the strip wall no more than 4 inches (102mm) above the finished floor.
 - > Floor mounted demarcation lines shall be placed within 4 inches of the wall and shall extend to within 2 inches (51 mm) of the marking on the leading edge of landings. The demarcation lines shall be continue across the floor in front of all doors.
3. Directional Signage: Photoluminescent directional signs shall be placed in the stairwell and exit. The signs shall be located such that their top edge is within 18" (457 mm) above the finished floor.



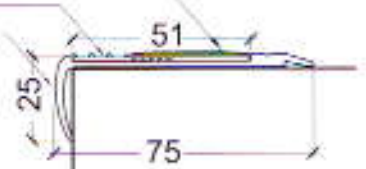
Ecoglo Photoluminescent Strips
(Use Bostik Seal N Flex Sealant, sold separately)



Ecoglo Photoluminescent Signs
(Use Bostik Seal N Flex Sealant, sold separately)



Silicon Carbide Non Slip Material
15.5 mm Photoluminescent Strip
6060 Aluminium Profile,
Natural Anodised



F8171 Step Nosing Perspective



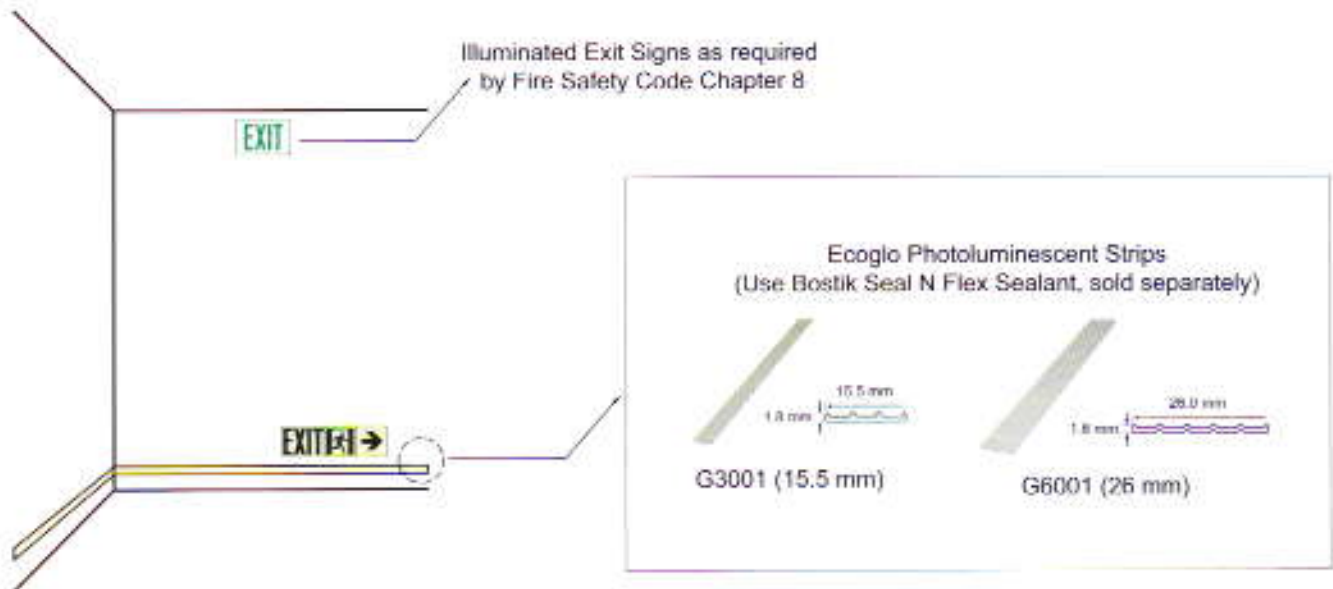
F8171 Step Nosing comply with BCA Code of Accessibility in Built Up Environment.

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Demarcation Along Interior Walls and Protected Lobby

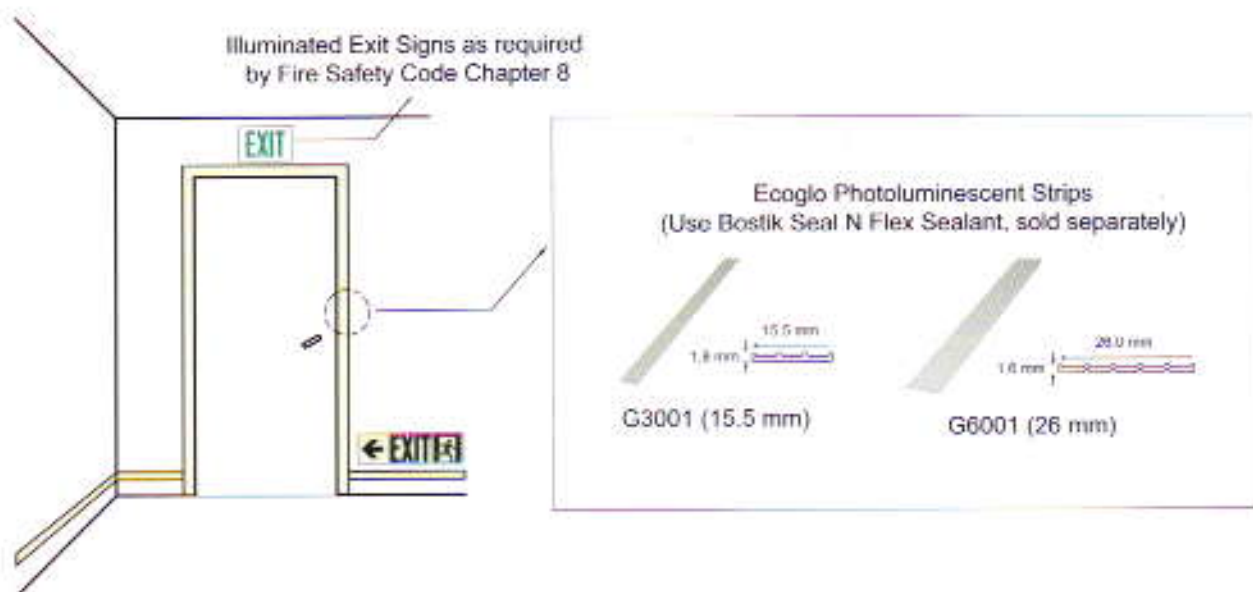
Perimeter demarcation lines shall be placed on the floor or on the wall or a combination of both:

- > Wall mounted demarcation lines shall be placed on the wall with the bottom edge of the strip wall no more than 4 inches (102mm) above the finished floor.
- > Floor mounted demarcation lines shall be placed within 4 inches of the wall and shall extend to within 2 inches (51 mm) of the marking on the leading edge of landings. The demarcation lines shall be continue across the floor in front of all doors.



At the EXIT Door

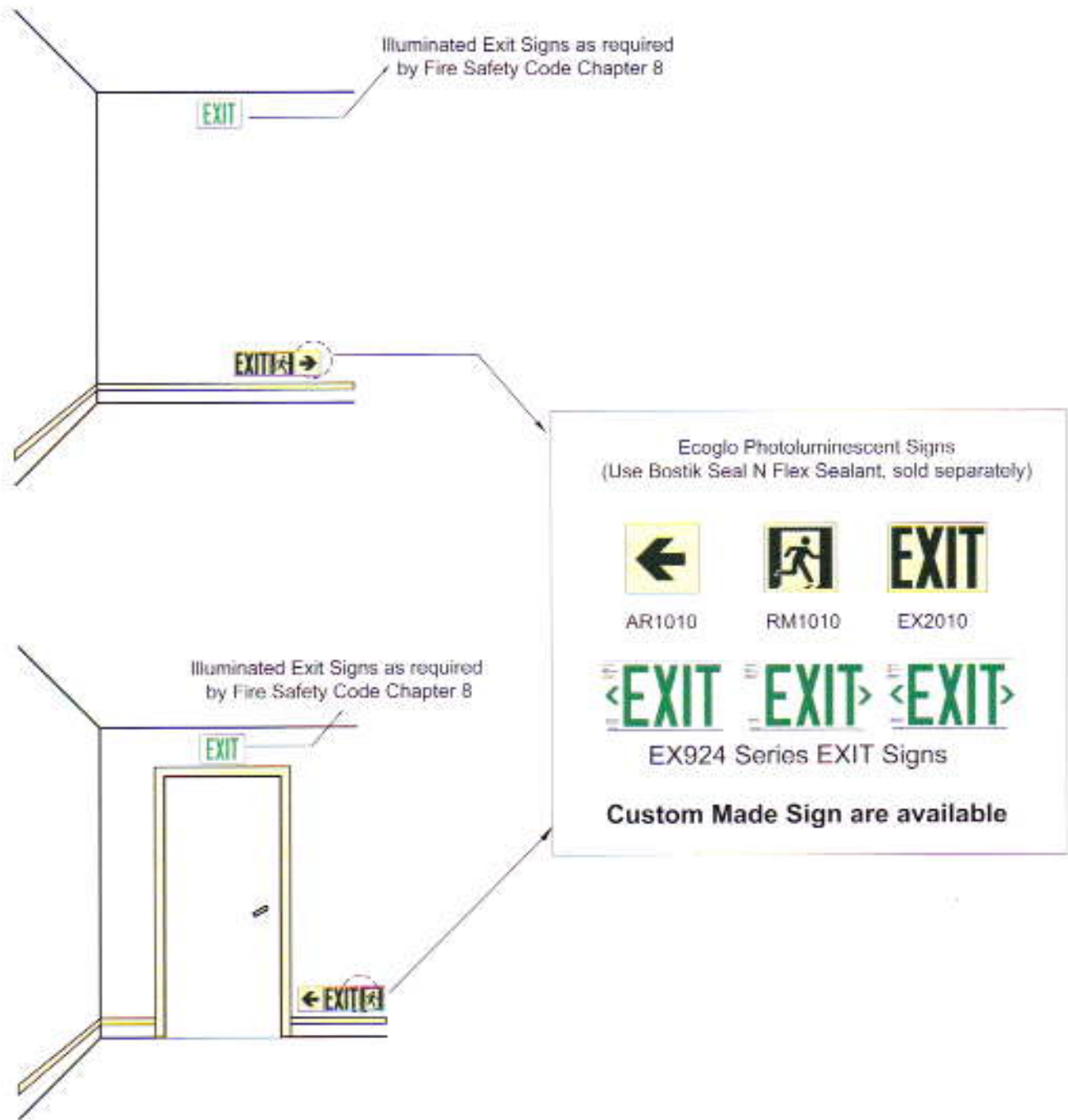
The top and sides of the door frame of all intermediate and final exit doors shall be marked with a solid strip of Photoluminescent material. Where the door molding does not provide enough flat surface on which to locate the strip, the strip may be located on the wall surrounding the frame.



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EXIT DIRECTIONAL SIGNS

Directional Signage: Photoluminescent directional signs shall be placed along the internal wall of the corridor. The signs shall be located such that their top edge is within 18" (457 mm) above the finished floor.



Ecoglo Products

Step nosing products

Ecoglo step nosings are designed to create a highly visible step edge to reduce falls and enhance egress speed in all situations whether light, dark or dimly lit. The right-angled aluminium step nosing is fitted onto the edge of the step to create an aesthetically pleasing edge. The photoluminescent strip is visible for many hours after the lights go out, having been charged from sunlight or artificial light. The anti-slip mat provides all weather protection from slips and falls.

The step nosings are available in various extrusions including carpet nosings and threshold strips to suit the situation. Different extrusions can be developed on request. The anti-slip colour options are black, yellow or grey.

Contrast strips

Ecoglo contrast strips are designed to create a highly visible step edge to reduce falls and enhance speed in all situations whether light, dark or dimly lit. The photoluminescent strip is visible for many hours after the lights go out, having been charged from sunlight or artificial light. The anti-slip strip provides all weather protection from slips and falls. Using less aluminium than with full nosings contrast strips are the high performance product to include in any cost effective solution.

The product range includes black, yellow or grey anti-slip and various widths to suit.

Handrail products

The H5001 handrail strip is designed to add a lighting component to handrails. Easy to touch and see, the strip makes a user feel safer when negotiating stairs or other pathways in the dark. The photoluminescent strip is visible for many hours after the lights go out, having been charged by sunlight or artificial light.

Handrails are available in two size options 15.5 and 27mm.

Egress and Emergency signage

Ecoglo's Emergency and Egress signs are high visibility products with the resilience to be installed in any environment. That includes indoor/outdoor as well as installation onto floors and walls.

The products are designed to meet the criteria of building codes as they emerge around the world. In Australia and New Zealand photoluminescent signs may not be used to replace electrical emergency signs at this time. Therefore the Ecoglo signage products should be used to supplement existing lighting systems or used in places where commonsense dictates the placement of a sign even if the code does not.

The photoluminescent signage is visible for many hours after the lights go out, having been charged by sunlight or artificial light. Ecoglo signage can aid existing electrical systems as they are failsafe, operate immediately and if placed low will assist egress in smoke filled rooms.

Aisle Markers and Seat Numbers

Ecoglo's highly visible aisle markers and seat numbers guide visitors to their seats. Working equally well in light, dark and dim conditions they reduce the disruption to others, increase the efficiency of ushers and make it easier to visit the concessions or other facilities.

The photoluminescent material will be highly visible for access, yet will not disrupt the performers from the stage. It will remain visible for the length of a performance (concert, movies, etc). Directional instructions or icons can be installed to provide more efficient egress.

The product range includes various shapes and sizes. Black writing on photoluminescent background or reversed out.

Benefits and Technical Details

Ecoglo products meet or exceed the performance criteria specified in the following tests or standards:

1. High Visibility in Dark or Light conditions.

Brightness:

ASTM E2073-02, Standard Test Method for Photopic Luminance of Photoluminescent (Phosphorescent) Markings.

DIN 67510 Part 1, Phosphorescent Pigments and Products: Measurement and identification by the manufacturer.

ISO 17398:2004 Clause 7.11, Safety Colours and Safety Signs- Classification, Performance and Durability of Safety Signs.

UL 1994 Luminous Egress Path Marking Systems

UL 1994 Emergency Lighting and Power Equipment

ASTM E2072 Standard Specification for Photoluminescent (Phosphorescent) Safety Markings

2. High Durability Indoors and Outdoors.

UV Stability: ASTM G155-04 Cycle 1 2000hrs, Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials.

Salt Spray Resistance: ASTM B117-97 500hrs, Standard Practice for Operating Salt Spray (Fog) Apparatus.

Freeze-Thaw Resistance: ASTM C1026-87(1996), Standard Test Method for Measuring the Resistance of Ceramic Tile to Freeze-Thaw Cycling.

3. Reduces Slips.

Slip Resistance: UL410, Standard for Slip Resistance for Floor Surface Materials.

AS/NZS 4586-1999, Slip Resistance Classification of New Pedestrian Surface Materials.

AS/NZ 4586 - 2004 Slip resistance classification of new pedestrian surface materials - Appendix D (oil-wet ramp test).

4. Hard Wearing

Abrasion Resistance:

ASTM D1242-95a, Standard Test Methods for Resistance of Plastic Materials to Abrasion.

ASTM B 244-97, Test Methods for Measurement of Anodic Coatings on Aluminum and other Nonconductive Coatings on Nonmagnetic Basis Metals with Eddy-Current Instruments.

ASTM B137-95(2000), Test Method for Measurement of Coating Mass per Unit Area of Anodically Coated Aluminum.

ASTM F510-93(2004), Standard Test Method for Resistance to Abrasion of Resilient Floor Coverings Using an Abrader with a Grit Feed Method.

JIS H8682-1:1999, Test methods for abrasion resistance of anodic oxide coatings on aluminium and aluminium alloys- Wheel wear test.

5. Easy Cleaning.

Washability:

ASTM D4828-94(2003), Standard Test Methods for Practical Washability of Organic Coatings.

ASTM B136-84(1998), Standard Test Method for Measurement of Stain Resistance of Anodic coatings on Aluminum.

6. No Radioactivity or Toxicity.

Radioactivity: ASTM D3648-2004, Standard Practices for the Measurement of Radioactivity.

Toxicity: Bombardier SMP 800-C (2000), Toxic Gas Generation Test.

7. Does not burn.

Flammability:

ASTM E162-02, Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source.

ASTM D635-03, Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.

FAA AC 23.2 Paragraph 4.b, Horizontal Burn Test.