Ecoglo International Limited

Catalogue & Technical Manual

for

Photoluminescent Safe Movement System for Stadiums and Arenas

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Contents:

Specification: Photoluminescent Safe Movement System for Stadiums and Arenas.

Section 10 45 00 – Photoluminescent Exit Specialties

A) BACKGROUND

Modern sports and entertainment venues are required to balance many, sometimes competing, factors. These include spectator experience, functionality, safety, flexibility and sustainability.

A well designed and installed Photoluminescent (PL) Safe Movement System will mitigate related issues and assist the balancing of these factors.

By providing continuous, highly visible cues, the PL Safe Movement System enhances safety and helps the stadium meet or exceed regulatory performance requirements for safe movement and egress.

This PL Safe Movement System is intended for international use and is specifically designed to mitigate non-compliance issues relating to NFPA 101 and the Green Guide (Guide to Safety at Sports Grounds). Local expert advice should be sought for compliance with local codes and regulations.

Issues Mitigated by a PL Safe Movement System

1) Visibility and Step Definition in Low-light or No-light Conditions

Traditional systems may not ensure that step edges and access routes are visible during events where lighting is extinguished or reduced. This is especially an issue for visually impaired patrons.

a) Concert Mode and Non-standard Operating Scenarios

During concerts or events where house lighting is intentionally extinguished or reduced for effect, standard wayfinding and step markings may become invisible increasing the risk of trips and falls. PL Safe Movement Systems maintain visibility of steps ensuring safe movement regardless of operational mode.

b) Safe Egress During Emergencies

In emergency mode, step visibility drops drastically, making traditional markings hard to see. PL Safe Movement Systems provide continuous, passive illumination, ensuring that evacuation routes, step edges, and handrails are clearly marked even if electrical systems fail.

The instant visibility of a PL Safe Movement System alleviates extended start-up or changeover times for emergency lighting. The periods of darkness, even if short can cause panic.

2) Shadows Created from High Bay Lighting

Shadows are a significant hazard in stadiums and arenas, particularly on stepped aisles, ramps, and stairs. Overhead lighting, while essential for general illumination,

often creates uneven lighting conditions, resulting in shadows that obscure step edges, changes in level, or obstacles. This can compromise safe movement by reducing visibility of edges of steps or platforms, obscuring handrails, barriers, and other wayfinding elements, and complicating wayfinding and evacuation during power outages or reduced lighting.

a) Shadows from Architectural Elements
Shadows cast by overhead fixtures can further reduce the effective visibility of critical features, particularly in areas with complex geometry or where patrons' sightlines are already challenged by crowding or architectural features.

b) Crowd Created Shadows
In densely populated aisles and stairways patrons prevent overhead lighting from reaching steps which can significantly slow egress speeds or cause trips and falls.

Both shadow scenarios are mitigated by increasing the visibility of all essential building elements with suitable PL markings.

3) Trip Hazards from Variable Riser Heights and Stepped Ramps
Variability in riser heights and the configuration of stepped ramps in both the upper and lower bowls pose trip hazards, especially when visibility is compromised.
PL markings directly address this by highlighting step edges and transitions, helping patrons adjust their movement and reducing the likelihood of missteps.

4) Long Runs of Steps Without Change in Direction
The upper bowl often features stepped aisles with steep gradients and lengths like "long run" stairs (exceeding 36 risers). This increases descent risk and fear, particularly in emergencies.
A PL Safe Movement System improves user confidence and reduces fall risk by maintaining clear, continuous visual cues along the entire egress route.

5) Visibility of Handrails and Balustrades
Continuous, graspable handrails are required but can be difficult to see in low light. The PL system includes marking of handrails, ensuring they are easily locatable and usable even in darkness, supporting safe movement and compliance with grasp ability requirements.

In particular, the following issues can be mitigated by installing PL markings on handrails and balustrades.

a) Height of Handrails or Balustrades
Physical constraints can restrict the ability to install handrails and balustrades at recommended heights.

b) Lack of Handrails or Balustrades
Some aisles are too narrow for handrails to be installed. Without handrails, patrons lack reliable support when ascending or descending stairs, especially on steep or long flights, increasing the likelihood of slips, trips, and falls. Clearly visible step edges will make movement safer.

6) Crowd Formation During Ingress
In concert mode lighting row and seat numbering can become difficult to see and understand. This can lead to patron hesitation and crowd build-up in aisles.

Photoluminescent row and seat markers make wayfinding easier and will mitigate hesitation and crowd build-up resulting in improved safety and improved customer experiences.

B) REFERENCES

Photoluminescent Lighting Council Ltd (PLC) Daylight Charging Simulation Test Method for Photoluminescent Egress Path Marking Systems.
(www.plcouncil.com.au)

Photoluminescent Lighting Council Ltd (PLC) Test Method for High Temperature Cured (HTC) Products.
(www.plcouncil.com.au)

Underwriters Laboratories, Inc. (UL) UL 1994 Standard for Safety, Luminous Egress Path Marking Systems.
(www.ul.com)

Underwriters Laboratories, Inc. (UL) UL 410 Standard for Slip Resistance of Floor Surface Materials.
(www.ul.com)

Standards Australia. AS 4586-2013 Slip Resistance Classification of New Pedestrian Surface Materials.
(www.standards.org.au)

C) DESCRIPTION

This document is to assist with specification and procurement of high-performance products to form a PhotoLuminescent Safe Movement system (PLSM system) and is offered as a guide to experienced and knowledgeable professionals who assume full responsibility for its interpretation and use.

A PL Safe Movement system can be used to enhance concert mode lighting and emergency lighting systems and to increase egress safety when smoke and shadows obscure overhead emergency lighting.

D) WORKS SUMMARY

Stair and Step Edge Markings
Handrail Markings
Egress Signage
Row and Seat Markers

E) WARRANTY

30 Year Warranty on photoluminescent performance when positioned indoors.
15 Year Warranty on photoluminescent performance when positioned outdoors.

F) PRODUCTS

Step Edge Markings

PLC Level 4 Luminance	- YES
UL1994	- YES
UL410	- YES OR AS 4586-2013 Appendix A
PLC HTC	- YES

<u>Product Codes for Lighter Coloured Surfaces</u>

F15-179 Step Nosing
ET14-079 Step Threshold

Product Codes for Darker Coloured Surfaces
F15-289 Step Nosing
ET14-089 Step Threshold

Step Return Markings

PLC Level 2 Luminance	- YES
UL1994	- YES
UL410	- YES
PLC HTC	- YES

Product Codes
G6-011
T2-1011

Handrail Markings

PLC Level 2 Luminance	- YES
UL1994	- YES
PLC HTC	- YES

Product Codes
H3-001 Handrail Strip
HREC3.WHT End Cap (non-HTC)
HRJC3.WHT Joiner Cap (non-HTC)
G3-001 Guidance Strip (for flat handrails)

Egress Signage

UL1994	- YES
PLC HTC	- YES

Product Codes
S5-RM2010
S5-RMUA2010
S5-RMDA2010
S5-RML2010
S5-RMR2010
S5-RMUL2010
S5-RMDL2010
S5-RMUR2010
S5-RMDR2010

Row and Seat Markers

PLC Level 2 Luminance	- YES
PLC HTC	- YES
Clear Protective Coat	- YES

Product Codes
SQ63RP-R Row Marker - 63mm x 63mm, round corners

SQ90RP-R Row Marker - 90mm x 90mm, round corners
SQ63RP-S Row Marker - 63mm x 63mm, straight corners
SQ90RP-S Row Marker - 90mm x 90mm, straight corners
SQ63RSP-R Row & Seat Marker - 63mm x 63mm, round corners
SQ90RSP-R Row & Seat Marker - 90mm x 90mm, round corners
SQ63RSP-S Row & Seat Marker - 63mm x 63mm, straight corners
SQ90RSP-S Row & Seat Marker - 90mm x 90mm, straight corners
SQ63RN-R Row Marker - 63mm x 63mm, round corners, PL letters/numbers on black background
SQ90RN-R Row Marker - 90mm x 90mm, round corners, PL letters/numbers on black background
SQ63RN-S Row Marker - 63mm x 63mm, straight corners, PL letters/numbers on black background
SQ90RN-S Row Marker - 90mm x 90mm, straight corners, PL letters/numbers on black background
SQ63RSN-R Row & Seat Marker - 63mm x 63mm, round corners, PL letters/numbers on black background
SQ90RSN-R. Row & Seat Marker - 90mm x 90mm, round corners, PL letters/numbers on black background
SQ63RSN-S Row & Seat Marker - 63mm x 63mm, straight corners, PL letters/numbers on black background
SQ90RSN-S Row & Seat Marker - 90mm x 90mm, straight corners, PL letters/numbers on black background
RE10063RSP-R Row & Seat Marker - 100mm x 63mm, round corners
RE10063RSP-S Row & Seat Marker - 100mm x 63mm, straight corners
RE10063RSN-R Row & Seat Marker - 100mm x 63mm, round corners, PL numbers/letters on black background
RE10063RSN-S Row & Seat Marker - 100mm x 63mm, straight corners, PL numbers/letters on black background
EL187567 Ellipse Seat Marker - 18.7mm x 56.7mm
DS40 Round Seat Marker - 40mm
DS30 Round Seat Marker - 30mm
OB1130S Obround Seat Marker - 30mm x 10.5mm

G) TESTING NOTES

PLC Level 4 Luminance Test

PLC Daylight Charging Simulation Test Method for Photoluminescent Egress Path Marking Systems.

The photoluminescent material in Step Edge Markings shall have its performance verified by independent testing with activation charging of D65, 5,000 lux for 60 minutes.

Pass Criteria

After charging ceases, minimum luminance readings shall not be less than:

54mcd/m2 after 120 minutes (2 hours)
23mcd/m2 after 240 minutes (4 hours)
18mcd/m2 after 300 minutes (5 hours)
10mcd/m2 after 480 minutes (8 hours)
8mcd/m2 after 600 minutes (10 hours)

PLC Level 2 Luminance Test
PLC Daylight Charging Simulation Test Method for Photoluminescent Egress Path Marking Systems.
The photoluminescent material in Step Return Markings, Handrail Markings and Row & Seat Markers shall have its performance verified by independent testing with activation charging of D65, 5,000 lux for 60 minutes.

Pass Criteria
After charging ceases, minimum luminance readings shall not be less than:

25.0mcd/m2 after 120 minutes (2 hours)
10.4mcd/m2 after 240 minutes (4 hours)
7.7mcd/m2 after 300 minutes (5 hours)
4.5mcd/m2 after 480 minutes (8 hours)
3.4mcd/m2 after 600 minutes (10 hours)

PLC HTC – High Temperature Curing
PLC Test Method for High Temperature Cured (HTC) Products.

Pass Criteria
The samples shall have no colour change, blistering or distortion.

Anti-slip surfaces must be manufactured using HTC technology.

UL 1994 Luminance
Standard for Luminous Egress Path Marking Systems

Pass Criteria
Passed by Underwriters Laboratory USA

UL 410 Slip Resistance
Standard for Slip Resistance for Floor Surface Materials

Pass Criteria
Passed by Underwriters Laboratory USA

AS 4586-2013 Slip Resistance
Slip Classification of New Pedestrian Surface Materials,
Appendix A Wet Pendulum Test

Pass Criteria
Classification P5

H) MANUFACTURER
Certified Zero Carbon Business Operations.
Certified ISO 9001-2015
At least 25 years' experience manufacturing HTC products

I) OPERATING INSTRUCTIONS – MINIMUM ACTIVATION CHARGING
Photoluminescent materials require light to provide activation charging. This light can be natural daylight or artificial light.

i) No Daylight Venues

An event with 4 hours of total darkness requires 100lx 4000K minimum CCT lighting for 60 minutes immediately prior to the event.
An event with 3 hours of total darkness requires 54lx 4000K minimum CCT lighting for 60 minutes immediately prior to the event.

ii) Daylight Venues

Venues with good daylight will be fully charged at sunset if the PL materials have received at least 2 hours of 300+ lux daylight. From fully charged the system will be visible for 6 hours.
If the venue, or parts of the venue, do not receive good daylight, or the low light event (and patrons exiting) finishes more than 6 hours after sunset then activation charging should be provided to that area as per No Daylight Venues (i).

J) ROUTINE TESTING
A 4” x 4” (100mm x 100mm) test plate representative of the photoluminescent material in the step nosings should be installed in the bowl. In daylight venues this should be installed to be exposed to maximum direct sun.

Once every 2 years the test plate shall be removed and tested in accordance with the PLC Daylight Charging Simulation Test Method for Photoluminescent Egress Path Marking Systems. Pass criteria – Level 4 as per the standard.

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Appendices to

Catalogue & Technical Manual for Safe Movement System for Stadiums and Arenas

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Contents:

Appendix 1

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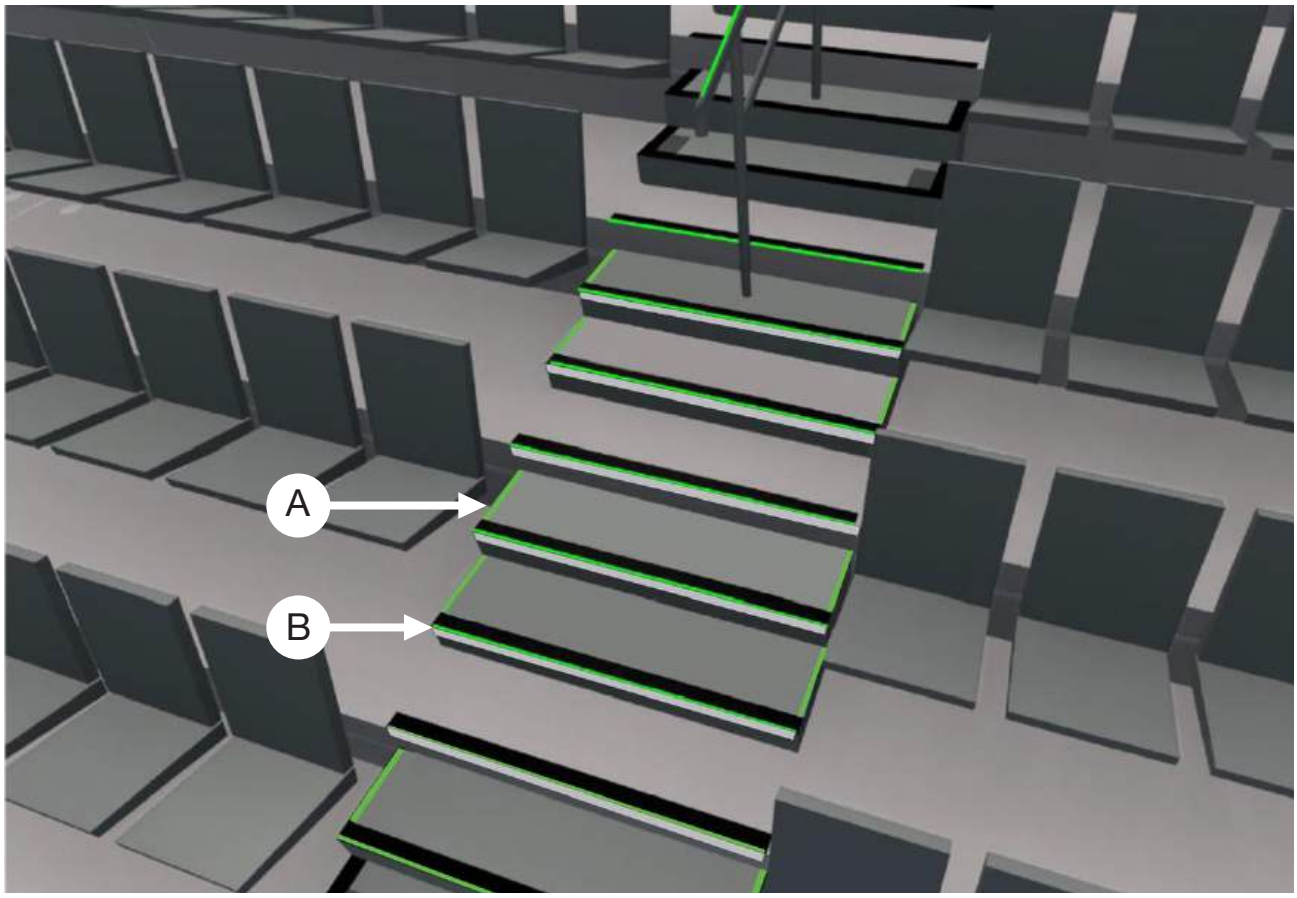
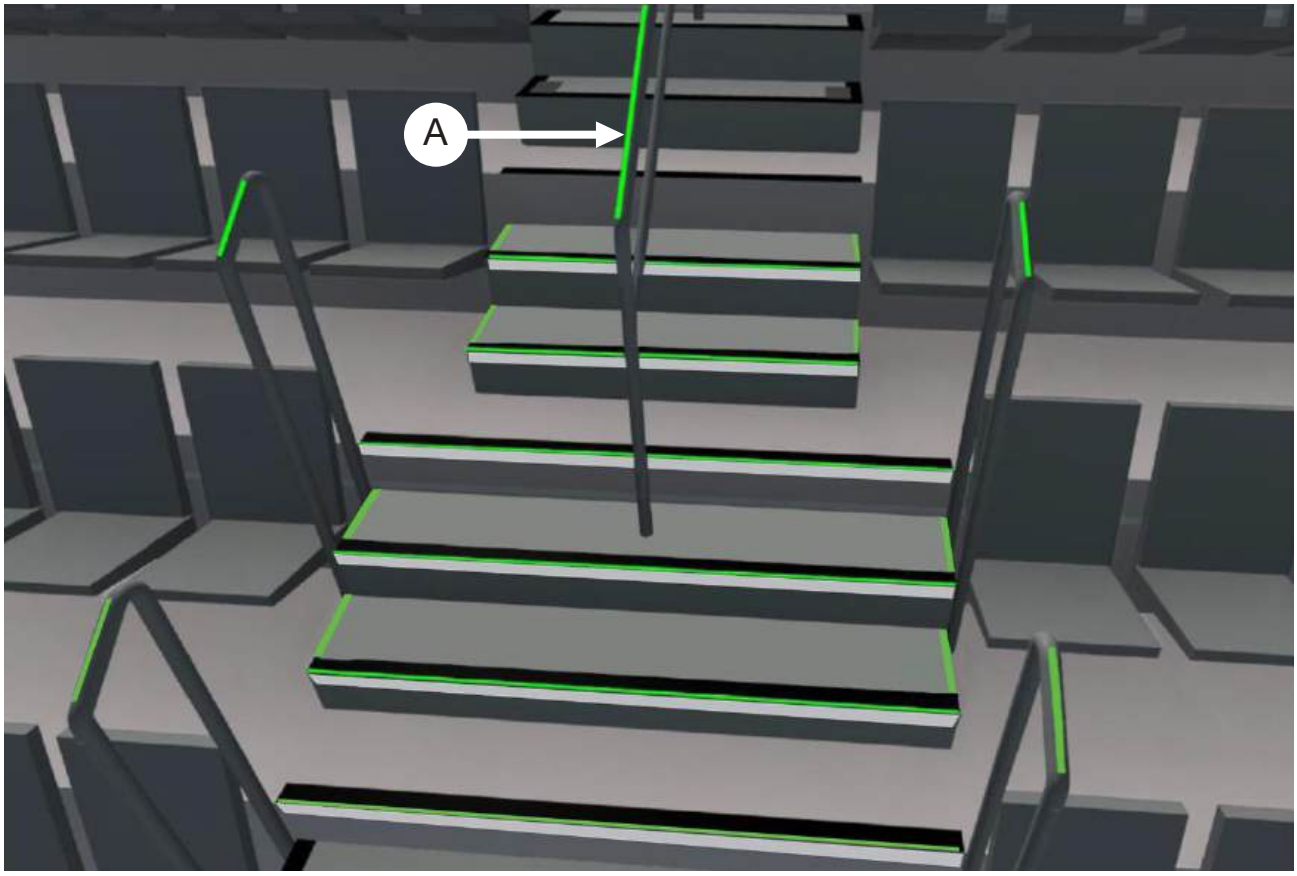
Positioning of Products



(**A**) Marker for Side of Steps
Product Codes: G6-011, T2-1011

(**B**) Marker for Front of Steps
Product Codes: F15-179, ET14-079 (Recommended on light surfaces)
Product Codes: F15-289, ET14-089 (Recommended on dark surfaces)



(**A**) Handrail Marker
Product Code: H3-001 (Rounded handrails)
Product Code: G3-001 (Flat handrails)

Appendix 2

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Product Data Sheets

Product Data Sheet
Step Nosing F15-179

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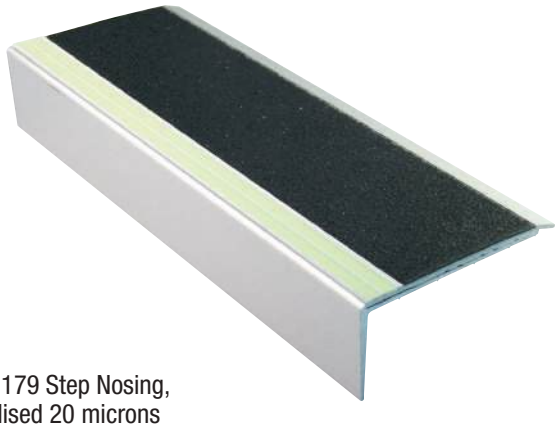
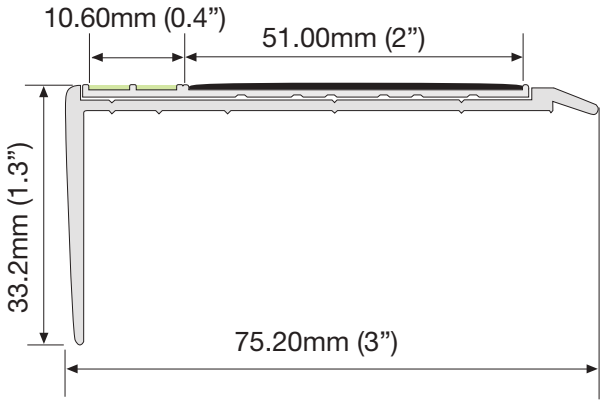


F15-179 Step Nosing,
anodised 20 microns



The F15-179 Step Nosing is designed to enhance visibility of steps in sports and entertainment venues. Recommended for installation on lighter coloured substrates, F15-179 Step Nosing is suitable for use indoors and outdoors. The anti-slip material provides all weather protection from slips and falls.

PERFORMANCE

Luminance Properties - S20 photoluminescent material shall have its performance verified by independent testing with activation charging of D65, 5,000 lux for 60 minutes.

After removal of activation charging the minimum luminance shall be not less than:

54 mcd/m2 after 120 minutes (2 hours)
23 mcd/m2 after 240 minutes (4 hours)
18 mcd/m2 after 300 minutes (5 hours)
10 mcd/m2 after 480 minutes (8 hours)
8 mcd/m2 after 600 minutes (10 hours)

Anti-slip Properties – UL410 Standard for Slip Resistance for Floor Surface Materials
AS/NZS 4586-2004 Classification: Dry: F Wet: V Ramp: R12
AS 4586-2013 Classification: P5
UV Resistance - Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability - ASTM E162: Pass
Toxicity - Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity - ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY

The product is available in 2.45 metre (8ft) and 3.06 metre (10ft) lengths.

COMPOSITION

The F15-179 Step Nosing profile consists of 6060T5 aluminium extrusion, anodized (natural/silver colour) to 20 microns thickness.

Ecoglo E14-079 Step Edge Contrast is adhesively fixed into the extrusion. The high visibility E14-079 is manufactured from extruded 6063T5 aluminium section. Silicon carbide and/or aluminium oxide anti-slip materials and custom made photoluminescent pigment are embedded in thermoset polyester carriers to integrally bond the active ingredients into the aluminium following curing at high temperature. The photoluminescent area is also recessed into protective channels.

HTC HIGH TEMPERATURE CURING

INSTALLATION

The F15-179 Step Nosing can be installed on lighter coloured substrates including on concrete, timber, tiles, vinyl, steel and checker plate. Uni clamp assemblies can be used for installation onto steel mesh steps.

Maximum recommended length for installation is 1500mm.

On site cutting instructions can be downloaded **here**.

Installation needs to be carried out strictly in accordance with the Ecoglo installation instructions.

Consult Installation Instructions on website for full details and surface preparation.

Contact
Ecoglo International Limited
Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet
Step Nosing F15-289

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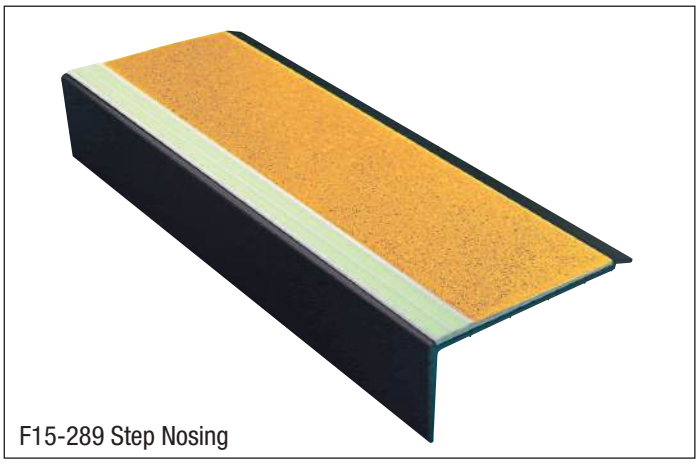
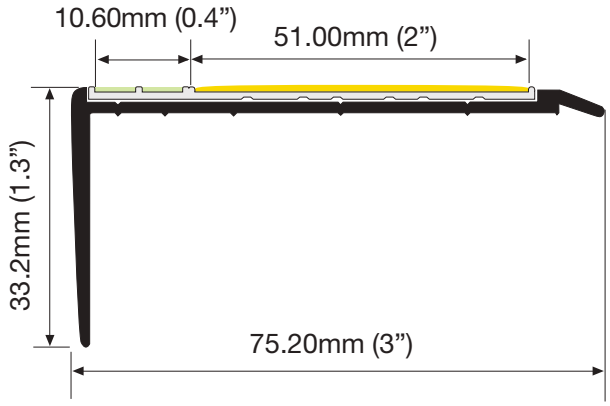

F15-289 Step Nosing



The F15-289 Step Nosing is designed to enhance visibility of steps in sports and entertainment venues. Recommended for installation on darker coloured substrates, F15-289 Step Nosing is suitable for use indoors and outdoors. The anti-slip material provides all weather protection from slips and falls.

PERFORMANCE

Luminance Properties - S20 photoluminescent material shall have its performance verified by independent testing with activation charging of D65, 5,000 lux for 60 minutes.

After removal of activation charging the minimum luminance shall be not less than:

54 mcd/m2 after 120 minutes (2 hours)
23 mcd/m2 after 240 minutes (4 hours)
18 mcd/m2 after 300 minutes (5 hours)
10 mcd/m2 after 480 minutes (8 hours)
8 mcd/m2 after 600 minutes (10 hours)

Anti-slip Properties – UL410 Standard for Slip Resistance for Floor Surface Materials
AS/NZS 4586-2004 Classification: Dry: F Wet: V Ramp: R12
AS 4586-2013 Classification: P5
UV Resistance - Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability - ASTM E162: Pass
Toxicity - Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity - ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY

The product is available in 2.45 metre (8ft) and 3.06 metre (10ft) lengths.

COMPOSITION

The F15-289 Step Nosing profile consists of 6060T5 aluminium extrusion, anodised (black) to 20 microns thickness.

Ecoglo E14-089 Step Edge Contrast is adhesively fixed into the extrusion. The high visibility E14-089 is manufactured from extruded 6063T5 aluminium section. Silicon Carbide and/or aluminium oxide anti-slip materials and custom made photoluminescent pigment are embedded in thermoset polyester carriers to integrally bond the active ingredients into the aluminium following curing at high temperature.
The photoluminescent area is also recessed into protective channels.

HTC HIGH TEMPERATURE CURING

INSTALLATION

The F15-289 Step Nosing can be installed on darker coloured substrates including on concrete, timber, tiles, vinyl, steel and checker plate.
Uni clamp assemblies can be used for installation onto steel mesh steps.

Maximum recommended length for installation is 1500mm.

On site cutting instructions can be downloaded **here**.

Installation needs to be carried out strictly in accordance with the Ecoglo installation instructions.

Consult Installation Instructions on website for full details and surface preparation.

NOTE: If lead time is short, powder coated product (F15-P289) should be selected.

Contact
Ecoglo International Limited
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Product Data Sheet
Step Threshold ET14-079 / ET14-089

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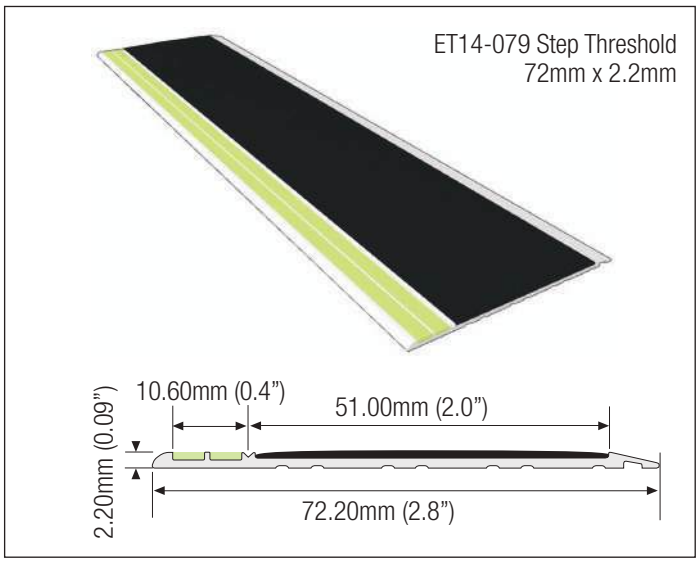

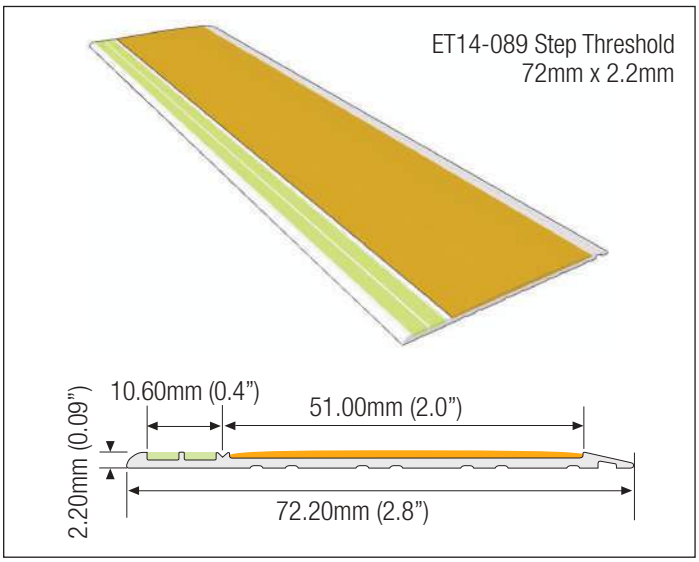

The ET14-079 / 089 Step Threshold is designed to enhance visibility of steps in sports and entertainment venues.
ET14-079 / 089 Step Threshold is suitable for use indoors and outdoors. The anti-slip material provides all weather protection from slips and falls.

PERFORMANCE

Luminance Properties - S20 photoluminescent material shall have its performance verified by independent testing with activation charging of D65, 5,000 lux for 60 minutes.

After removal of activation charging the minimum luminance shall be not less than:

54 mcd/m^2 after 120 minutes (2 hours)
23 mcd/m^2 after 240 minutes (4 hours)
18 mcd/m^2 after 300 minutes (5 hours)
10 mcd/m^2 after 480 minutes (8 hours)
8 mcd/m^2 after 600 minutes (10 hours)

Anti-slip Properties – UL410 Standard for Slip Resistance for Floor Surface Materials
AS/NZS 4586-2004 Classification: Dry: F Wet: V Ramp: R12
AS 4586-2013 Classification: P5
UV Resistance - Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability - ASTM E162: Pass
Toxicity - Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity - ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY

The product is available in 2.45 metre (8ft) and 3.06 metre (10ft) lengths.

COMPOSITION

Ecoglo ET14-079 / 089 Step Threshold is manufactured from extruded 60605T aluminium section. Silicon Carbide anti-slip materials and custom made photoluminescent pigment are embedded in thermoset polyester carriers to integrally bond the active ingredients into the aluminium following curing at high temperature. The photoluminescent area is also recessed into protective channels.

HTC HIGH TEMPERATURE CURING

INSTALLATION

Indoors the ET14-079 / 089 Step Threshold can be surface mounted on all smooth surfaces. Outdoors the Step Edge Contrast can be surface mounted onto concrete.

Maximum recommended length for installation is 1500mm.

On site cutting instructions can be downloaded **here.**

Installation needs to be carried out strictly in accordance with the Ecoglo installation instructions.

Consult Installation Instructions on website for full details and surface preparation.

PRODUCT CODES

ET14-079-2450 - Step Threshold 72mm PL/BLACK - 2.45m / 8ft
ET14-079-3060 - Step Threshold 72mm PL/BLACK - 3.06m / 10ft
ET14-089-2450 - Step Threshold 72mm PL/SAFETY YELLOW - 2.45m / 8ft
ET14-089-3060 - Step Threshold 72mm PL/SAFETY YELLOW - 3.06m / 10ft

Contact
Ecoglo International Limited
Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet
Step Return Markings G6-011

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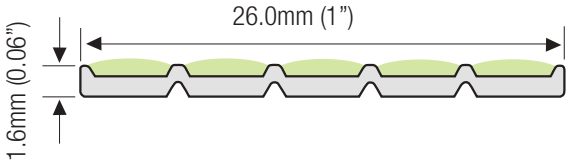
G6-011 Step Return Markings 26mm



The G6-011 Step Return Markings are designed to ensure visibility of steps in sports and entertainment venues. The Step Return Markings are suitable for use indoors and outdoors.
The anti-slip material provides all weather protection from slips and falls.

PERFORMANCE

Luminance Properties - S10 photoluminescent material shall have it's performance verified by independent testing with activation charging of D65, 5,000 lux for 60 minutes

After removal of activation charging the minimum luminance shall be not less than:

25 mcd/m2 after 120 minutes (2 hours)
10.4 mcd/m2 after 240 minutes (4 hours)
7.7 mcd/m2 after 300 minutes (5 hours)
4.5 mcd/m2 after 480 minutes (8 hours)
3.4 mcd/m2 after 600 minutes (10 hours)

UV Resistance - Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability - ASTM E162: Pass
Toxicity - Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity - ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY

The product is available in 2.45 metre (8ft) and 3.06 metre (10ft) lengths.

COMPOSITION

Ecoglo G6-011 Step Return Markings are manufactured from extruded 6063T5 aluminium section. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients into the aluminium following curing at high temperature. The photoluminescent material also contains aluminium oxide and sits proud of the extrusion to provide anti-slip characteristics.

HTC HIGH TEMPERATURE CURING

INSTALLATION

The G6-011 can be installed on light or dark surfaces.

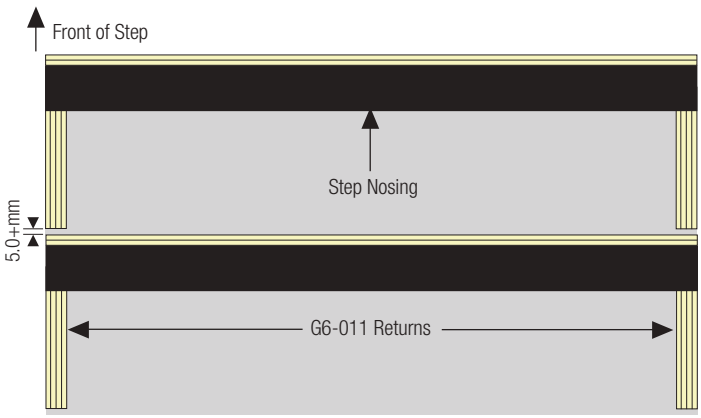
Maximum recommended length for installation is 1500mm

Cut to length on-site and installed with adhesive.

Ensure the area is closed off to allow curing.

If there is any sealer on the concrete the adhesive should be tested for compatibility. If in doubt, use fixers as well as adhesive.

G6-011-2450 For polyurethane adhesive fixing
G6-011-3060 For polyurethane adhesive fixing



The Step Return Markings should be placed as above

Contact
Ecoglo International Limited
Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet
Step Return Markings T2-1011

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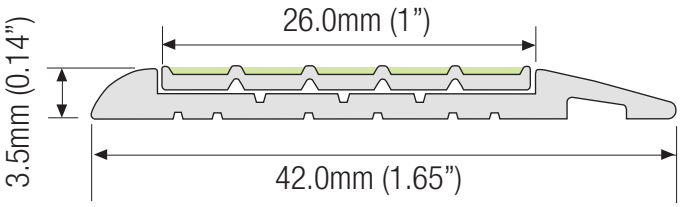
T2-1011 Step Return Markings 42mm x 3.5mm



The T2-1011 Step Return Markings are designed to ensure visibility of steps in sports and entertainment venues. The Step Return Markings are suitable for use indoors and outdoors. The anti-slip material provides all weather protection from slips and falls.

PERFORMANCE

Luminance Properties - S10 photoluminescent material shall have it's performance verified by independent testing with activation charging of D65, 5,000 lux for 60 minutes

After removal of activation charging the minimum luminance shall be not less than:

25 mcd/m2 after 120 minutes (2 hours)
10.4 mcd/m2 after 240 minutes (4 hours)
7.7 mcd/m2 after 300 minutes (5 hours)
4.5 mcd/m2 after 480 minutes (8 hours)
3.4 mcd/m2 after 600 minutes (10 hours)

UV Resistance - Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability - ASTM E162: Pass
Toxicity - Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity - ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY

The product is available in 3.06 metre (10ft) lengths.

COMPOSITION

Ecoglo T2-1011 profile consists of 6063T6 aluminium extrusion, anodized (silver colour) to 12 microns thickness.
Ecoglo G6-011 is adhesively fixed into the extrusion. The high visibility G6-011 is manufactured from extruded 60605T aluminium section. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients into the aluminium following curing at high temperature. The photoluminescent area is also recessed into protective channels.

HTC HIGH TEMPERATURE CURING

INSTALLATION

The T2-1011 can be installed on light or dark surfaces.

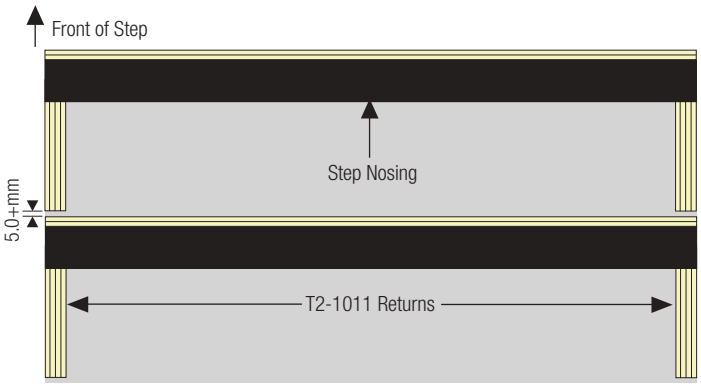
Maximum recommended length for installation is 1500mm.

Cut to length on-site and installed with adhesive.

Ensure the area is closed off to allow curing.

If there is any sealer on the concrete the adhesive should be tested for compatibility. If in doubt, use fixers as well as adhesive.

T2-1011-3060 For polyurethane adhesive fixing



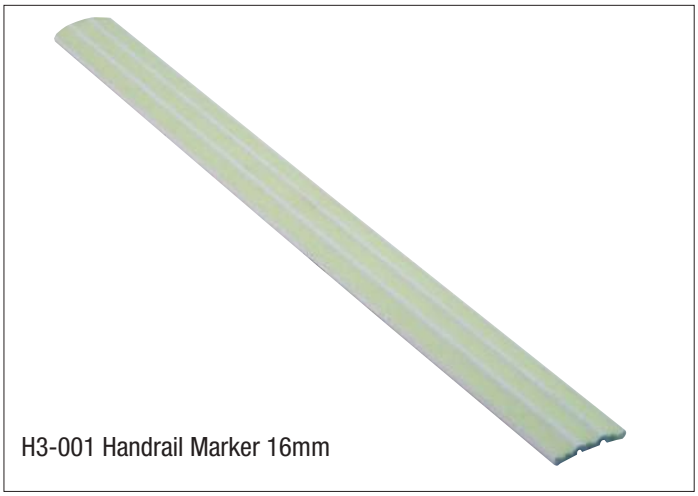
The Step Return Markings should be placed as above

Contact
Ecoglo International Limited
Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet
Handrail Marker H3-001

2026 V1

VISIBLY BETTER



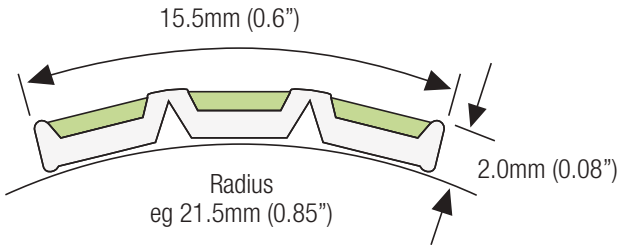
H3-001 Handrail Marker 16mm

The H3-001 Handrail Marker is designed to enhance visibility in handrails in sports and entertainment venues. Recommended for installation on curved handrails. H3-001 is suitable for use indoors and outdoors.

PERFORMANCE

Luminance Properties - S10 photoluminescent material shall have its preformance verified by independent testing with charging of D65, 5,000 lux for 60 minutes. After removal of activation charging the minimum luminance shall not be less than:

25 mcd/m^2 after 120 minutes (2 hours)
10.4 mcd/m^2 after 240 minutes (4 hours)
7.7 mcd/m^2 after 300 minutes (5 hours)
4.5 mcd/m^2 after 480 minutes (8 hours)
3.4 mcd/m^2 after 600 minutes (10 hours)



UV Resistance - Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability –ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability - ASTM E162: Pass
Toxicity - Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity - ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY

The product is available in 3.06 metre (10ft) lengths.

COMPOSITION

Ecoglo H3-001 Handrail Marker is manufactured from extruded 6063T5 aluminium section. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients into the aluminium following curing at high temperature. The photoluminescent area is also recessed into protective channels.

HTC HIGH TEMPERATURE CURING

INSTALLATION

Installation needs to be carried out strictly in accordance with the Ecoglo installation instructions.

Maximum recommended length for installation is 1500mm.

Consult installation instructions on website for full details and surface preparation.
Screws or rivets can be used if adhesion is difficult.

H3-001-3060 For polyurethane adhesive fixing
H3-001T-3060 Release tape pre-fitted

END AND JOINER CAPS

Metal end caps (see insert) and joiner caps to fit H3-001 are also available if required.
These are fixed using a screw or rivet and are suitable for use outdoors.

HREC3 Metal End Cap
HRJC3 Metal Joiner Cap

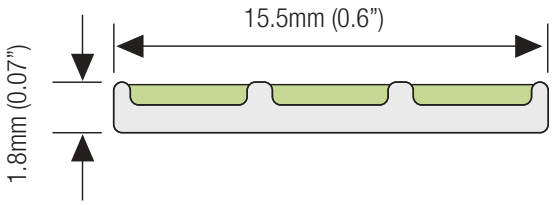
Contact
Ecoglo International Limited
Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet
Guidance Strip G3-001

2026 V1

VISIBLY BETTER

G3-001 Guidance Strip 16mm



The G3-001 Guidance Strip is designed to enhance visibility of handrails in sports and entertainment venues. Recommended for installation on flat handrails. G3-001 is suitable for use indoors and outdoors.

PERFORMANCE

Luminance Properties - S10 photoluminescent material shall have its preformance verified by independent testing with charging of D65, 5,000 lux for 60 minutes. After removal of activation charging the minimum luminance shall not be less than:

25 mcd/m^2 after 120 minutes (2 hours)
10.4 mcd/m^2 after 240 minutes (4 hours)
7.7 mcd/m^2 after 300 minutes (5 hours)
4.5 mcd/m^2 after 480 minutes (8 hours)
3.4 mcd/m^2 after 600 minutes (10 hours)

UV Resistance - Loss of luminance after 1000 hrs ASTM G-155
Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability –ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability - ASTM E162: Pass
Toxicity - Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity - ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY

The product is available in 3.06 metre (10ft) lengths.

COMPOSITION

Ecoglo G3-001 Guidance Strip is manufactured from extruded 6063T5 aluminium section. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients into the aluminium following curing at high temperature. The photoluminescent area is also recessed into protective channels.

HTC HIGH TEMPERATURE CURING

INSTALLATION

Installation needs to be carried out strictly in accordance with the Ecoglo installation instructions.

Maximum recommended length for installation is 1500mm.

Consult Installation Instructions on website for full details and surface preparation.

Fixers (screws) can be used if adhesion is difficult.
(See order codes below for the product that best suits).

G3-001-3060 For polyurethane adhesive fixing
G3-001P-3060 Punched for screw fixing
G3-001T-3060 Release tape pre-fitted

Contact
Ecoglo International Limited
Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet - Pictogram RM

2025 V1

ecoglo®
VISIBLY BETTER

Ecoglo S5 “Pictogram” signs are designed to be clearly visible to persons approaching the exit for compliance with NFPA 101 Life Safety Code and International Fire Code (IFC). The signs will be clearly visible and readily understandable under all conditions of foreseeable use, including emergency conditions.

SIGN DEFINITION
Exit straight on from here.

COMPLIANCE
Ecoglo S5 “Pictogram” signs have been tested to UL 1994 specifications to meet NFPA 101 and IFC.

PERFORMANCE
A charging source of 1 ft-candle (11 lux) of fluorescent illumination is necessary for 60 minutes to ensure that minimum luminance requirements of 30 mcd/m2 at 10 minutes and 5 mcd/m2 at 90 minutes are met after failure of the main lighting.

Operating Temperature Range: +10°C to +30°C

UV Resistance – Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability – ASTM E162: Pass
Toxicity – Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity – ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY
The product is available in the following size.

PRODUCT CODE	PRODUCT NAME	SIGN DEFINITION	SIGN SIZE
S5-RM2010	Pictogram	Exit straight from here	200mm x 100mm (8” x 4”)

COMPOSITION
The high visibility flat panel is manufactured from 5005 0.9mm aluminium sheet. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients onto the aluminium sheet following curing at high temperature.

HTC
HIGH TEMPERATURE CURING

INSTALLATION
The sign is supplied with pre-fitted release tape for fixing flat on a wall or door.

Contact

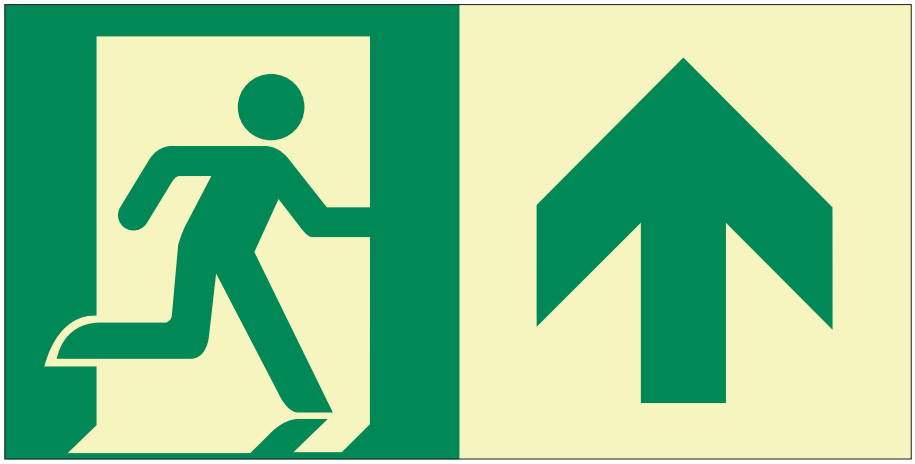
Ecoglo International Limited

Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet - Pictogram Up Arrow RMUA

2025 V1

ecoglo® VISIBLY BETTER



Ecoglo S5 "Pictogram Up Arrow" signs are designed to be clearly visible to persons approaching the exit for compliance with NFPA 101 Life Safety Code and International Fire Code (IFC). The signs will be clearly visible and readily understandable under all conditions of foreseeable use, including emergency conditions.

SIGN DEFINITION
Exit straight on from here.

COMPLIANCE
Ecoglo S5 "Pictogram Up Arrow" signs have been tested to UL 1994 specifications to meet NFPA 101 and IFC.

PERFORMANCE
A charging source of 1 ft-candle (11 lux) of fluorescent illumination is necessary for 60 minutes to ensure that minimum luminance requirements of 30 mcd/m2 at 10 minutes and 5 mcd/m2 at 90 minutes are met after failure of the main lighting.

Operating Temperature Range: +10°C to +30°C

UV Resistance – Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability – ASTM E162: Pass
Toxicity – Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity – ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY
The product is available in the following size.

PRODUCT CODE	PRODUCT NAME	SIGN DEFINITION	SIGN SIZE
S5-RMUA2010	Pictogram Up Arrow	Exit up from here	200mm x 100mm (8" x 4")

COMPOSITION
The high visibility flat panel is manufactured from 5005 0.9mm aluminium sheet. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients onto the aluminium sheet following curing at high temperature.

HTC HIGH TEMPERATURE CURING

INSTALLATION
The sign is supplied with pre-fitted release tape for fixing flat on a wall or door.

Contact

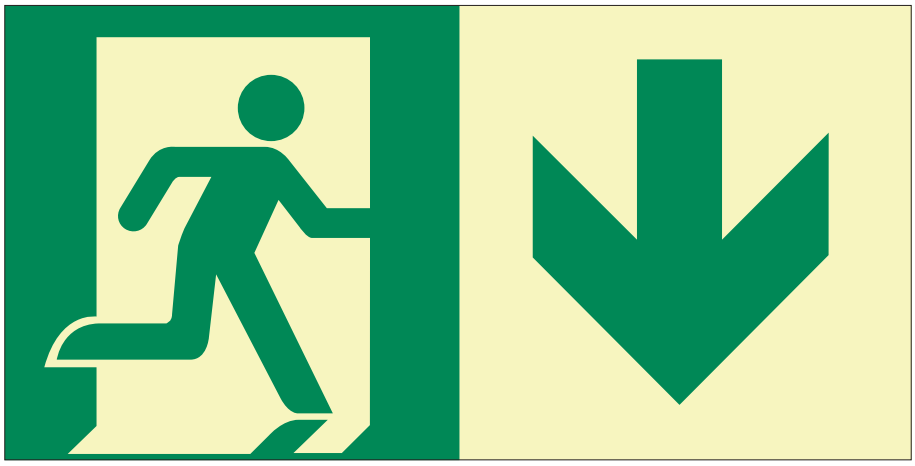
Ecoglo International Limited

Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet - Pictogram Down Arrow RMDA

2025 V1

ecoglo® VISIBLY BETTER



Ecoglo S5 "Pictogram Down Arrow" signs are designed to be clearly visible to persons approaching the exit for compliance with NFPA 101 Life Safety Code and International Fire Code (IFC). The signs will be clearly visible and readily understandable under all conditions of foreseeable use, including emergency conditions.

SIGN DEFINITION
Exit down from here.

COMPLIANCE
Ecoglo S5 "Pictogram Down Arrow" signs have been tested to UL 1994 specifications to meet NFPA 101 and IFC.

PERFORMANCE
A charging source of 1 ft-candle (11 lux) of fluorescent illumination is necessary for 60 minutes to ensure that minimum luminance requirements of 30 mcd/m2 at 10 minutes and 5 mcd/m2 at 90 minutes are met after failure of the main lighting.

Operating Temperature Range: +10°C to +30°C

UV Resistance – Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%

Salt Spray Resistance – ASTM B117: Pass

Washability – ASTM D4828: Pass

Rate of Burning – ASTM D635: Pass

Surface Flammability – ASTM E162: Pass

Toxicity – Bombardier Toxic Gas Generation Test SMP800-C: Pass

Radioactivity – ASTM D3648: Pass

High Temperature Curing: Pass

SUPPLY
The product is available in the following size.

PRODUCT CODE	PRODUCT NAME	SIGN DEFINITION	SIGN SIZE
S5-RMDA2010	Pictogram Down Arrow	Exit down from here	200mm x 100mm (8" x 4")

COMPOSITION
The high visibility flat panel is manufactured from 5005 0.9mm aluminium sheet. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients onto the aluminium sheet following curing at high temperature.

HTC HIGH TEMPERATURE CURING

INSTALLATION
The sign is supplied with pre-fitted release tape for fixing flat on a wall or door.

Contact

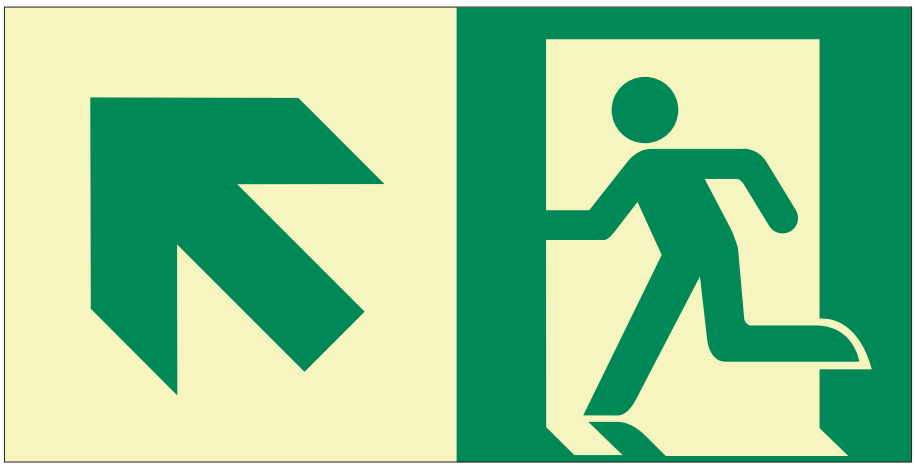
Ecoglo International Limited

Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet - Pictogram Up Left Arrow RMUL

2025 V1

ecoglo® VISIBLY BETTER



Ecoglo S5 “Pictogram Up Left Arrow” signs are designed to be clearly visible to persons approaching the exit for compliance with NFPA 101 Life Safety Code and International Fire Code (IFC). The signs will be clearly visible and readily understandable under all conditions of foreseeable use, including emergency conditions.

SIGN DEFINITION
Exit up left from here.

COMPLIANCE
Ecoglo S5 “Pictogram Up Left Arrow” signs have been tested to UL 1994 specifications to meet NFPA 101 and IFC.

PERFORMANCE
A charging source of 1 ft-candle (11 lux) of fluorescent illumination is necessary for 60 minutes to ensure that minimum luminance requirements of 30 mcd/m2 at 10 minutes and 5 mcd/m2 at 90 minutes are met after failure of the main lighting.

Operating Temperature Range: +10°C to +30°C

UV Resistance – Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability – ASTM E162: Pass
Toxicity – Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity – ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY
The product is available in the following size.

PRODUCT CODE	PRODUCT NAME	SIGN DEFINITION	SIGN SIZE
S5-RMUL2010	Pictogram Up Left Arrow	Exit up left from here	200mm x 100mm (8” x 4”)

COMPOSITION
The high visibility flat panel is manufactured from 5005 0.9mm aluminium sheet. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients onto the aluminium sheet following curing at high temperature.

HTC HIGH TEMPERATURE CURING

INSTALLATION
The sign is supplied with pre-fitted release tape for fixing flat on a wall or door.

Contact

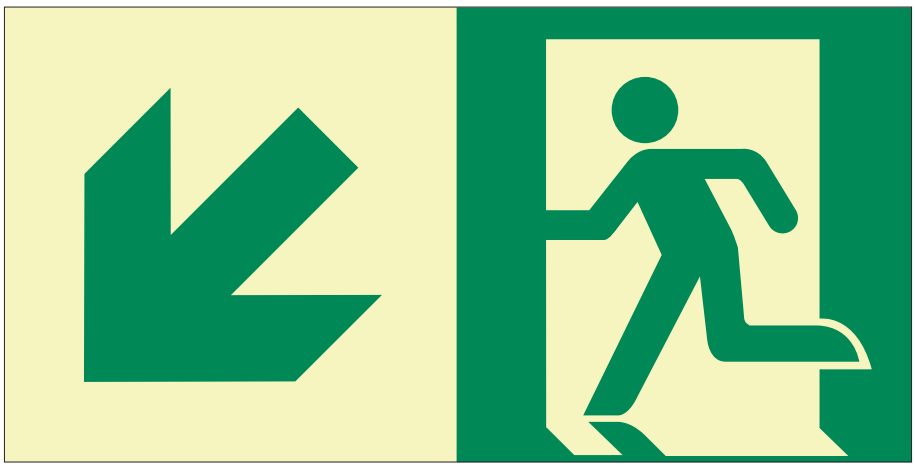
Ecoglo International Limited

Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet - Pictogram Down Left Arrow RMDL

2025 V1

ecoglo® VISIBLY BETTER



Ecoglo S5 “Pictogram Down Left Arrow” signs are designed to be clearly visible to persons approaching the exit for compliance with NFPA 101 Life Safety Code and International Fire Code (IFC). The signs will be clearly visible and readily understandable under all conditions of foreseeable use, including emergency conditions.

SIGN DEFINITION
Exit down left from here.

COMPLIANCE
Ecoglo S5 “Pictogram Down Left Arrow” signs have been tested to UL 1994 specifications to meet NFPA 101 and IFC.

PERFORMANCE
A charging source of 1 ft-candle (11 lux) of fluorescent illumination is necessary for 60 minutes to ensure that minimum luminance requirements of 30 mcd/m2 at 10 minutes and 5 mcd/m2 at 90 minutes are met after failure of the main lighting.

Operating Temperature Range: +10°C to +30°C

UV Resistance – Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability – ASTM E162: Pass
Toxicity – Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity – ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY
The product is available in the following size.

PRODUCT CODE	PRODUCT NAME	SIGN DEFINITION	SIGN SIZE
S5-RMDL2010	Pictogram Down Left Arrow	Exit down left from here	200mm x 100mm (8” x 4”)

COMPOSITION
The high visibility flat panel is manufactured from 5005 0.9mm aluminium sheet. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients onto the aluminium sheet following curing at high temperature.

HTC HIGH TEMPERATURE CURING

INSTALLATION
The sign is supplied with pre-fitted release tape for fixing flat on a wall or door.

Contact

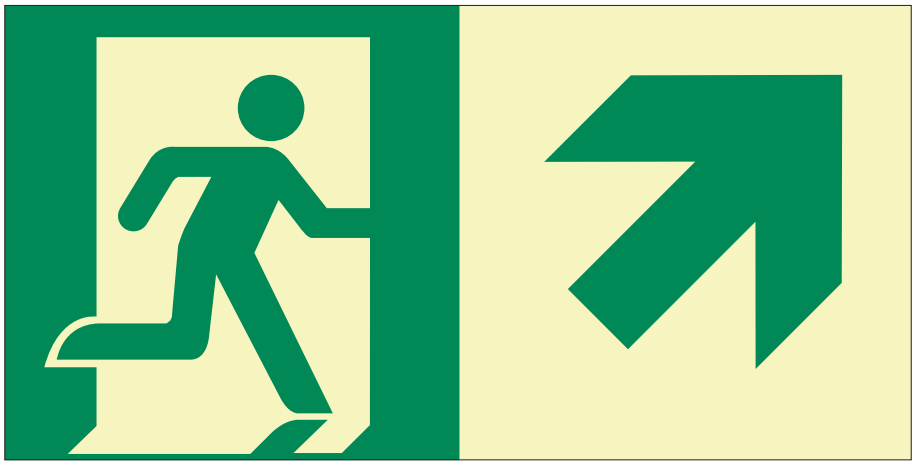
Ecoglo International Limited

Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet - Pictogram Up Right Arrow RMUR

2025 V1

ecoglo® VISIBLY BETTER



Ecoglo S5 "Pictogram Up Right Arrow" signs are designed to be clearly visible to persons approaching the exit for compliance with NFPA 101 Life Safety Code and International Fire Code (IFC). The signs will be clearly visible and readily understandable under all conditions of foreseeable use, including emergency conditions.

SIGN DEFINITION
Exit up right from here.

COMPLIANCE
Ecoglo S5 "Pictogram Up Right Arrow" signs have been tested to UL 1994 specifications to meet NFPA 101 and IFC.

PERFORMANCE
A charging source of 1 ft-candle (11 lux) of fluorescent illumination is necessary for 60 minutes to ensure that minimum luminance requirements of 30 mcd/m2 at 10 minutes and 5 mcd/m2 at 90 minutes are met after failure of the main lighting.

Operating Temperature Range: +10°C to +30°C

UV Resistance – Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability – ASTM E162: Pass
Toxicity – Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity – ASTM D3648: Pass
Radioactivity – ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY
The product is available in the following size.

PRODUCT CODE	PRODUCT NAME	SIGN DEFINITION	SIGN SIZE
S5-RMUR2010	Pictogram Up Right Arrow	Exit up right from here	200mm x 100mm (8" x 4")

COMPOSITION
The high visibility flat panel is manufactured from 5005 0.9mm aluminium sheet. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients onto the aluminium sheet following curing at high temperature.

HTC HIGH TEMPERATURE CURING

INSTALLATION
The sign is supplied with pre-fitted release tape for fixing flat on a wall or door.

Contact

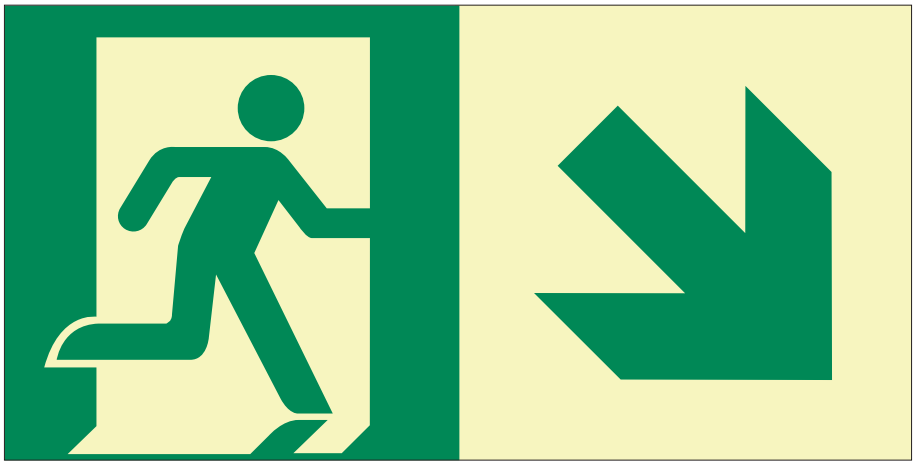
Ecoglo International Limited

Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet - Pictogram Down Right Arrow RMDR

2025 V1

ecoglo® VISIBLY BETTER



Ecoglo S5 “Pictogram Down Right Arrow” signs are designed to be clearly visible to persons approaching the exit for compliance with NFPA 101 Life Safety Code and International Fire Code (IFC). The signs will be clearly visible and readily understandable under all conditions of foreseeable use, including emergency conditions.

SIGN DEFINITION
Exit down right from here.

COMPLIANCE
Ecoglo S5 “Pictogram Down Right Arrow” signs have been tested to UL 1994 specifications to meet NFPA 101 and IFC.

PERFORMANCE
A charging source of 1 ft-candle (11 lux) of fluorescent illumination is necessary for 60 minutes to ensure that minimum luminance requirements of 30 mcd/m2 at 10 minutes and 5 mcd/m2 at 90 minutes are met after failure of the main lighting.

Operating Temperature Range: +10°C to +30°C

UV Resistance – Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability – ASTM E162: Pass
Toxicity – Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity – ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY
The product is available in the following size.

PRODUCT CODE	PRODUCT NAME	SIGN DEFINITION	SIGN SIZE
S5-RMDR2010	Pictogram Down Right Arrow	Exit right down from here	200mm x 100mm (8” x 4”)

COMPOSITION
The high visibility flat panel is manufactured from 5005 0.9mm aluminium sheet. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients onto the aluminium sheet following curing at high temperature.

HTC HIGH TEMPERATURE CURING

INSTALLATION
The sign is supplied with pre-fitted release tape for fixing flat on a wall or door.

Contact

Ecoglo International Limited

Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet - Pictogram Left Arrow RML

2025 V1

ecoglo® VISIBLY BETTER

Ecoglo S5 “Pictogram Left Arrow” signs are designed to be clearly visible to persons approaching the exit for compliance with NFPA 101 Life Safety Code and International Fire Code (IFC). The signs will be clearly visible and readily understandable under all conditions of foreseeable use, including emergency conditions.

SIGN DEFINITION
Exit left from here.

COMPLIANCE
Ecoglo S5 “Pictogram Left Arrow” signs have been tested to UL 1994 specifications to meet NFPA 101 and IFC.

PERFORMANCE
A charging source of 1 ft-candle (11 lux) of fluorescent illumination is necessary for 60 minutes to ensure that minimum luminance requirements of 30 mcd/m2 at 10 minutes and 5 mcd/m2 at 90 minutes are met after failure of the main lighting.

Operating Temperature Range: +10°C to +30°C

UV Resistance – Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%
Salt Spray Resistance – ASTM B117: Pass
Washability – ASTM D4828: Pass
Rate of Burning – ASTM D635: Pass
Surface Flammability – ASTM E162: Pass
Toxicity – Bombardier Toxic Gas Generation Test SMP800-C: Pass
Radioactivity – ASTM D3648: Pass
High Temperature Curing: Pass

SUPPLY
The product is available in the following size.

PRODUCT CODE	PRODUCT NAME	SIGN DEFINITION	SIGN SIZE
S5-RMDA2010	Pictogram Down Arrow	Exit down from here	200mm x 100mm (8” x 4”)

COMPOSITION
The high visibility flat panel is manufactured from 5005 0.9mm aluminium sheet. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients onto the aluminium sheet following curing at high temperature.

HTC HIGH TEMPERATURE CURING

INSTALLATION
The sign is supplied with pre-fitted release tape for fixing flat on a wall or door.

Contact

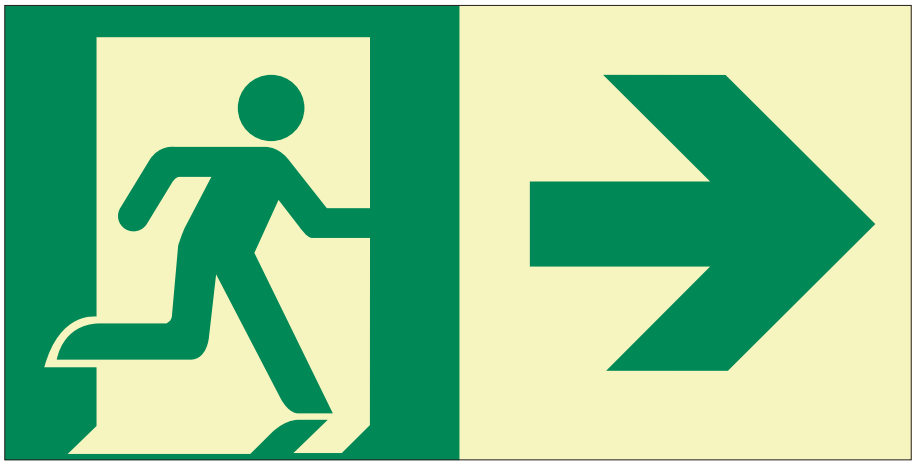
Ecoglo International Limited

Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet - Pictogram Right Arrow RMR

2025 V1

ecoglo® VISIBLY BETTER



Ecoglo S5 “Pictogram Right Arrow” signs are designed to be clearly visible to persons approaching the exit for compliance with NFPA 101 Life Safety Code and International Fire Code (IFC). The signs will be clearly visible and readily understandable under all conditions of foreseeable use, including emergency conditions.

SIGN DEFINITION
Exit right from here.

COMPLIANCE
Ecoglo S5 “Pictogram Right Arrow” signs have been tested to UL 1994 specifications to meet NFPA 101 and IFC.

PERFORMANCE
A charging source of 1 ft-candle (11 lux) of fluorescent illumination is necessary for 60 minutes to ensure that minimum luminance requirements of 30 mcd/m2 at 10 minutes and 5 mcd/m2 at 90 minutes are met after failure of the main lighting.

Operating Temperature Range: +10°C to +30°C

UV Resistance – Loss of luminance after 1000 hrs ASTM G-155 Cycle 1 exposure: <10%

Salt Spray Resistance – ASTM B117: Pass

Washability – ASTM D4828: Pass

Rate of Burning – ASTM D635: Pass

Surface Flammability – ASTM E162: Pass

Toxicity – Bombardier Toxic Gas Generation Test SMP800-C: Pass

Radioactivity – ASTM D3648: Pass

High Temperature Curing: Pass

SUPPLY
The product is available in the following size.

PRODUCT CODE	PRODUCT NAME	SIGN DEFINITION	SIGN SIZE
S5-RMDA2010	Pictogram Down Arrow	Exit down from here	200mm x 100mm (8” x 4”)

COMPOSITION
The high visibility flat panel is manufactured from 5005 0.9mm aluminium sheet. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients onto the aluminium sheet following curing at high temperature.

HTC HIGH TEMPERATURE CURING

INSTALLATION
The sign is supplied with pre-fitted release tape for fixing flat on a wall or door.

Contact

Ecoglo International Limited

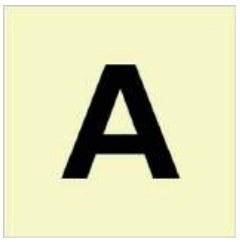
Email: info@ecoglo.com **Web**: www.ecoglo.com

Product Data Sheet - Row and Seat Markers

2026 V1

ecoglo® VISIBLY BETTER

Row Marker
Product Code SQ63RP-R
63mm x 63mm (2.5" x 2.5")
Product Code SQ90RP-R
90mm x 90mm (3.5" x 3.5")



Row Marker
Product Code SQ63RP-S
63mm x 63mm (2.5" x 2.5")
Product Code SQ90RP-S
90mm x 90mm (3.5" x 3.5")

Row & Seat Marker
Product Code SQ63RSP-R
63mm x 63mm (2.5" x 2.5")
Product Code SQ90RSP-R
90mm x 90mm (3.5" x 3.5")

Row & Seat Marker
Product Code SQ63RSP-S
63mm x 63mm (2.5" x 2.5")
Product Code SQ90RSP-S
90mm x 90mm (3.5" x 3.5")

Row Marker
Product Code SQ63RN-R
63mm x 63mm (2.5" x 2.5")
Product Code SQ90RN-R
90mm x 90mm (3.5" x 3.5")

Row Marker
Product Code SQ63RN-S
63mm x 63mm (2.5" x 2.5")
Product Code SQ90RN-S
90mm x 90mm (3.5" x 3.5")

Row & Seat Marker
Product Code SQ63RSN-R
63mm x 63mm (2.5" x 2.5")
Product Code SQ90RSN-R
90mm x 90mm (3.5" x 3.5")

Row & Seat Marker
Product Code SQ63RSN-S
63mm x 63mm (2.5" x 2.5")
Product Code SQ90RSN-S
90mm x 90mm (3.5" x 3.5")

Row & Seat Marker
Product Code
RE10063RSP-S
100mm x 63mm (4" x 2.5")

Row & Seat Marker
Product Code
RE610063RSP-R
100mm x 63mm (4" x 2.5")

Row & Seat Marker
Product Code
RE10063RSN-R
100mm x 63mm (4" x 2.5")

Row & Seat Marker
Product Code
RE10063RSN-S
100mm x 63mm (4" x 2.5")

Round Seat Marker
Product Code
DS30 - 30mm (1.2")
DS40 - 40mm (1.6")

Ellipse Seat Marker
Product Code EL187567
18.7mm x 56.7mm
(0.7" x 2.2")

Obround Seat Marker
Product Code OB1130S
30mm x 10.5mm
(1.2" x 0.4")

Ecoglo's highly visible photoluminescent Row Markers and Seat Markers are designed to be visible for the length of a performance (concert, movies, sporting event, etc.) to enhance the orderly movement of people to and from their seats. The markers work equally well in light, dark and dim conditions.

PERFORMANCE

Luminance Properties - S10 photoluminescent material shall have its performance verified by independent testing with activation charging of D65, 5,000 lux for 60 minutes.

After removal of activation charging the minimum luminance shall be not less than:

25 mcd/m^2 after 120 minutes (2 hours)
10.4 mcd/m^2 after 240 minutes (4 hours)
7.7 mcd/m^2 after 300 minutes (5 hours)
4.5 mcd/m^2 after 480 minutes (8 hours)
3.4 mcd/m^2 after 600 minutes (10 hours)

SUPPLY

The Row Marker can indicate row only or also include seat number ranges.

COMPOSITION

The high visibility flat panel is manufactured from 5005 0.9mm aluminium sheet. Custom made photoluminescent pigments are embedded in thermoset polyester carriers to integrally bond the active ingredients onto the aluminium sheet following curing at high temperature.

HTC HIGH TEMPERATURE CURING

INSTALLATION

Installation is usually a simple process with Row markers being adhesively fixed to the floor using a quality polyurethane adhesive such as Wurth KD Bond and Seal or Bostik Seal n Flex FC, and Seat Markers being fixed in position (usually in pre-moulded indent on seat) using rivets.

Note: The following markers, with a depth of 63mm and straight edges, can fit into F14 and F15 nosings alongside step edge contrast (shown here): SQ63RP-S, SQ63RN-S, SQ63RSP-S, SQ63RSN-S, RE10063RSP-S, RE10063RSN-S

Contact

Ecoglo International Limited

Email: info@ecoglo.com **Web**: www.ecoglo.com

Appendix 3

Ecoglo International Limited

Installation Instructions

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Installation Instructions For

Major Projects with On Site Cutting

F-Series Step Nosings

(Includes cutting and installing of T2-011 and G6-011 Step Return Markings)

Ecoglo markers are to be installed only where there will be sufficient natural or artificial light to keep them charged whenever the building is occupied.

If unsure, contact Ecoglo

Ecoglo International Limited
Email: info@ecoglo.com
www.ecoglo.com

Major Projects with On Site Cutting F-Series Step Nosings

Materials Required

- Work benches up to 2.0m long
- Input/output benching or racks
- Tape measure/ruler/pencil
- Drop saw with high speed tungsten carbide tip blade (eg Sash Pro 250mm diameter, 80 tooth) mounted on bench with support arms/guides for extrusions, and adjustable end stops
- Guillotine - Hand Operated Plate Shears (Model: Opti PS150, seen over page, or similar)
- Brush and pan
- Methylated spirits and cloth
- String
- Battery drill
- 5mm drill bit
- Drill suitable for concrete substrate
- 6mm masonry drill bits
- Anchors (plugs) - 6mm x 30mm
- Würth KD Bond and Seal or Bostik Seal'n'Flex FC adhesive (expected usage 11 metres per 600 ml sausage) or similar quality polyurethane adhesive
- Caulking (adhesive) gun
- Nozzles for caulking gun
- Fixers - 8G x 32mm (and 6G x 25mm for G6-011)
- Hand press-roller
- Alcohol wipes

Major Projects with On Site Cutting F-Series Step Nosings

Cutting

1. Measuring the Nosing and Insert

- Measure the required length of the nosing and the insert.
- Mark the position on both pieces where you will cut.

2. Cutting the Nosing to Length

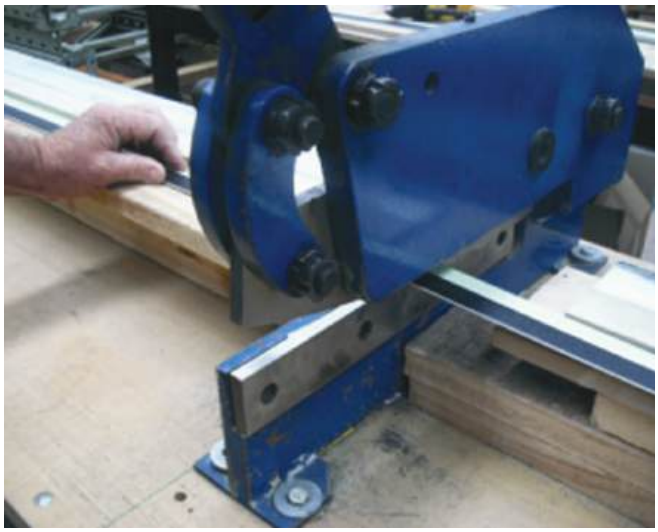
- Use the drop saw with a suitable tungsten carbide tip blade.
- Cut the nosing at the length measured.

NOTE: *The maximum recommended length for installation in outdoor situations is 1.5 metres, with a minimum 3mm gap between lengths. This allows for thermal expansion in extreme weather conditions and also aids in water drainage off the step tread.*

3. Cutting the Insert to Length

- Step edge contrast inserts contain silicon carbide grit that rapidly blunt high-speed saw blades, so a manual guillotine (as pictured below) is needed to cut the insert.
- Lay the insert strip, upside down, into the pre-cut nosing. Mark the insert strip for cutting.
- Remove the insert strip from the nosing and place into the guillotine. Use the guillotine to cut the insert - it is recommended that the inserts are always cut while upside down to eliminate potential bruising of the contrast strip.


Guillotine - Model: Opti PS150



Major Projects with On Site Cutting F-Series Step Nosings

Installation

1. Preparation of Surface

- Brush the surface clean of dust and debris. If necessary, clean with an industrial cleaner.
- Remove any paint or sealant and then allow the surface to dry.
- It is better for adhesion if timber surfaces are dry.

Steps with exposed sides:
Ensure the nosing is set back from exposed side by at least 20mm to ensure the outer edge of the nosing does not present a sharp hazard.

Built-in steps, Installed outdoors:
Leave a 3mm gap between the nosing and the built-in sides, to allow for thermal expansion, and water drainage.

NOTE: *The maximum recommended length for installation in outdoor situations is 1.5 metres. A 3mm expansion / drainage gap must be left between lengths.*

2. Alignment (for installation onto more than one step)

- Place one piece of step nosing on the top step and one on the bottom step.
- Run a string line from the left edge of the top nosing to the left edge of the bottom nosing.
- This will give you a straight, true line.

NOTE: If Step Edge Returns are to be fitted ensure enough space is left either side of the nosing

3. Locating Holes for Fixers (for Timber skip to step 5)

- Place the nosing firmly against the riser of the step.
- Line it up with your string line.
- Mark the location of the drill holes with the drill.
- Remove the nosing.

NOTE: *F15, F14 and F9 nosings come pre-drilled with holes every 100mm. You only require 4 fixers per metre. Where appropriate, fixers should be zigzagged across the pre-drilled holes to give maximum support to both sides of the nosing.*

4. Drilling holes for fixers (for Timber skip to step 5)

- Using a 6mm masonry bit, and a concrete drill, drill the hole that will house the plastic anchor.
- Wipe away any dust or debris.
- Place the plastic anchor fully in to the holes.

5. Applying Adhesive

- Lay a 3mm bead of polyurethane adhesive (such as Wurth KD Bond and Seal or Bostik Seal n Flex FC) in a wave pattern over the full length of the underside of the nosing.
- Keep the adhesive clear of the outside edge and the drill holes.

Major Projects with On Site Cutting F-Series Step Nosings

6. Securing the nosing profile

- Place the nosing firmly back onto the step, lining up the drill holes.
- Tighten the screws firmly using a battery hand drill- this will create a strong, even bond.
- For fixing on to wooden substrate follow the previous instructions but the plugs are not required.

Adhesive Usage:
11 metres per 600ml sausage

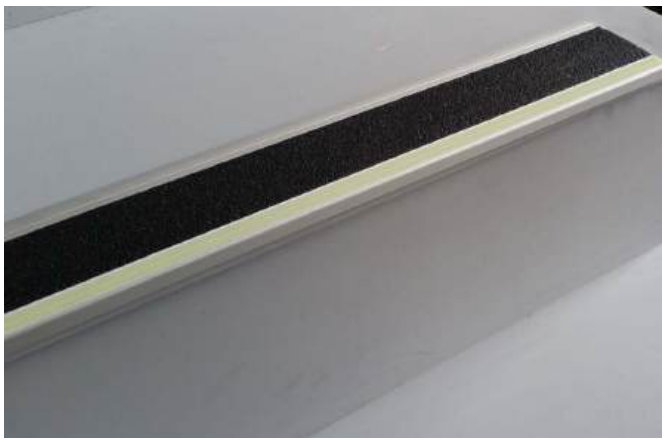
Ecoglo supply screw fixers with all orders and can also supply Wurth KD Bond and Seal in 600ml Sausage form with Applicator Gun.

7. Fixing Insert Strip

- Check nosing extrusion channel is free from dust, dirt, grease and moisture.
- Dust or wipe with methylated spirits or damp cloth if required.
- Lay a zigzag of adhesive, 1mm deep, 3mm wide on to the strip.
- Ensure that you don't over apply adhesive as it will spill out once the insert is placed into the nosing.

8. Insert strip into the nosing

- Line up the strip insert then place firmly onto the nosing.
- Press in place to ensure even contact between the adhesive and the surface of the channel.
- Use a roller or your foot to apply firm downward pressure.
- Use an alcohol wipe to remove any spill over of adhesive.



9. Curing of Adhesive

- Allow approximately 24 hours for adhesive to cure.

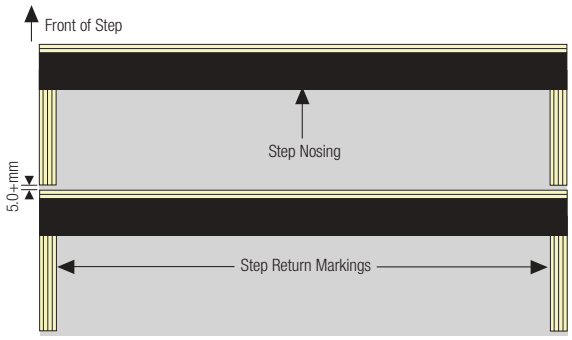
Major Projects with On Site Cutting T2-1011 and G6-011 Step Return Markings

T2-1011 Step Return Marking consists of G6-011 inserted into an aluminium profile (installation of T2-1011 is a 2 part process). G6-011 is a simple photoluminescent strip that can be used on its own.

Note: If there is any sealer on the concrete the adhesive should be tested for compatibility. If in doubt, use fixers as well as adhesive. If the Step Return Marking does not fit flush against the concrete, use fixers as well as adhesive.

1. Measuring the Markings

- If installing T2-1011, measure the required length of the aluminium profile only.
- If installing G6-011 measure the required length of the strip.
- The markings should be at least 5mm from the riser of the next step.
- Mark the position on the aluminium profile or strip where you will cut.



The Step Return Markings should be placed as above

The outside edge of the marking should be between 5 -10mm from the outside edge of the step and clear of any chamfer.

Note: When positioning T2-1011 aluminium it should slope towards the centre of the step.

2. Cutting the Markings to Length

Ecoglo recommends cutting G6-011 upside down to eliminate bruising and preserve blade life.

T2-1011

- Cut the T2-1011 aluminium profile to the measured length using a drop saw with a suitable tungsten carbide tip blade.
- Lay the G6-011 insert strip, upside down into the pre-cut aluminium profile, mark for cutting and remove.
- The G6-011 insert strip contains aluminium oxide therefore Ecoglo highly recommends using a guillotine, shear or aviation snips for a cleaner, safer cut.

G6-011

- Cut the G6-011 to the measured length using a guillotine, shear or aviation snips for a cleaner, safer cut.

3. Drilling Holes for Fixers

A minimum of 2 fixers are required for each marking.

- Using a hand drill with a 5mm drill bit, drill a hole 10-25mm in from each end of each marking. **Note**: (For T2-1011 drill holes are only required on aluminium profile - not on insert).
- In most cases 2 holes will be sufficient, however lengths longer than 350mm will also require a fixer in the middle of the marking.

Installation

If fixers are being used installation is a two-step process (using adhesive and fixers).

4. Locating Holes for Fixers

- Place each drilled piece at a right angle to the step nosing as in the diagram in step 1.
- The outside edge of the marking should be between 5-10mm from the outside edge of the step and clear of any chamfer.
- Allow an expansion gap of at least 5mm with the riser of the step above.
- Mark the location of the drill holes.
- Remove the marking.
- Using a 6mm masonry bit and a concrete drill, drill the hole that will house the plastic anchor.
- Wipe away any dust or debris.
- Place the anchor fully into the holes.

5. Preparation of Markings

- Clean back of all markings with a soft cloth and if necessary use methylated spirits (or similar solvent) to remove oil or grease.
- Allow to dry for approximately 1 minute.

6. Applying the Adhesive

- Apply a 3mm zigzag bead of polyurethane adhesive (such as Wurth KD Bond and Seal or Bostik Seal n Flex FC) along the full length of the back of the marking.
- Keep the adhesive clear of the outside edge and any drill holes.

7. Placement of the Markings

- Place each piece as in the diagram at 1. ensuring the holes in the marking line up with any drill holes (If applicable).

8. Apply Pressure to the Marking

- Apply even pressure to spread the adhesive beneath the marking using a hand roller.
- If necessary stand on each marking to ensure good contact between the marking and the step.
- If installing T2-1011, once the profile has been positioned, repeat the process by applying adhesive to the underside of the G6-011 strip and inserting into the nosing profile. Apply pressure again.

9. Allow the Adhesive to Cure

- Immediately following installation close off the area for a period of 8 hours to avoid the Ecoglo marking being moved whilst the adhesive is in the early stages of “cure”.
- Wait until adhesive has fully cured (allow at least 24 hours) before trimming any excess from each marking with a sharp blade.

10. Securing the Marking (If fixers are used).

- Place a screw fixer into each hole and drill in securely using a battery drill. (Do not over tighten the fixers).

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Installation Instructions For

Major Projects with On Site Cutting

E-Series Step Edge Contrast
ET-Series Step Edge Contrast
N-Series Step Edge Contrast

Ecoglo markers are to be installed only where there will be sufficient natural or artificial light to keep them charged whenever the building is occupied.

If unsure, contact Ecoglo

Ecoglo International Limited
Email: info@ecoglo.com
Ph: +64 3 348 3781
www.ecoglo.com

Major Projects with On Site Cutting Step Edge Contrast

Materials Required

- Work benches up to 2.0m long
- Tape measure/ruler/pencil
- Guillotine - Hand Operated Plate Shears (Model: Opti PS150 or similar)
- Hole spacing jig (using end stops and/or alignment marks)
- Bench hand punch
- Battery drill
- Drill bit for countersink
- Angle grinder (for surface preparation)
- Abrasive flap disc (for surface preparation)
- Methylated spirits and cloth
- Würth KD Bond and Seal or Bostik Seal'n'Flex FC adhesive (expected usage 25 - 30 metres per 600 ml sausage) or similar quality polyurethane adhesive
- Caulking (adhesive) gun
- Nozzles for caulking gun
- Fixers - 6G x 25mm
- Anchors (plugs) - 5 x 25mm
- Brush and pan

Cutting

1. Measuring the Contrast Strip

- Measure the required length of the strip.
- Mark the position where you will cut.

2. Cutting the Contrast Strip to Length

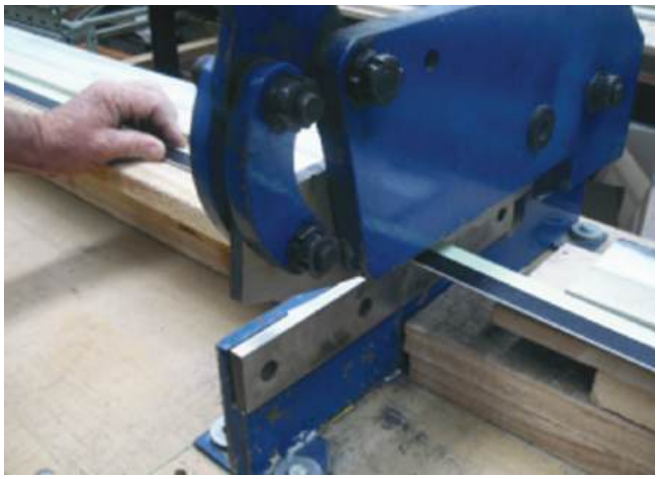
- Contrast strips contain silicon carbide grit that rapidly blunt high-speed saw blades, so a manual guillotine - also referred to as hand shears (example pictured below) - is needed to cut the strip.
- Lay the strip, upside down, into the guillotine.
- Use the guillotine to cut the strip - it is recommended that the strips are always cut while upside down to eliminate potential bruising of the strip.
- Cut the strip at the length measured.

NOTE: The maximum recommended length for installation in outdoor situations is 1.5 metres, with a minimum 3mm gap between lengths. This allows for thermal expansion in extreme weather conditions and also aids in water drainage off the step tread.

Guillotine - Model: Opti PS150

Punch Fixer Holes (if using fixers)

- Refer to the hole drilling/punching specification table below to determine positioning and number of holes.
- Ensure outside holes are approximately 50 mm in from each end.
- Mark where holes are to be made - this should be through the anti-slip material.
- Using a bench hand punch (example below) create holes for fixers.
- If countersinking is required, use a hand drill and countersink drill bit to make fixer flush with strip.



Using guillotine (hand shears) to cut strip

Bench Hand Punch - Model Bramley 023 (HP-10), 3-10mm

Hole Drilling Specifications

Strip Length	Less than 350mm	350mm - 650mm	650mm - 950mm	950mm - 1250mm	1250mm - 1500mm
Number of Holes	2	3	4	5	6

Major Projects with On Site Cutting Step Edge Contrast

Installation

1. Preparation of Surface

- Thoroughly clean the surface with industrial strength cleaner if necessary.
- Allow surface to dry.
- **If painted, sealed or coated, remove using an angle grinder with abrasive flap disc (see image below).**
- Brush/vacuum off the dust.
- Wipe surface with acetone.

Note: Installation onto Concrete Surfaces

- It is preferable to use adhesive only for concrete installations. The adhesive will allow some movement to compensate for thermal contraction and expansion and will provide durable adhesion to the concrete substrate.

** Where adhesive only installation is preferred on surfaces that have a sealer applied (eg concrete, exposed aggregate and some tiles) a test patch should be laid and allowed to temperature cycle over a minimum of 14 days to ensure a good bond is achieved.*
If the adhesive does not hold then mechanical fixers should be used.
If mechanical fixing is not practical due to potential damage to the substrate please contact Ecoglo.

2. Alignment of the Strips

- Mark 50mm from the left edge of the top step.
- Mark 50mm from the left edge of the bottom step.
- Place a string line between the marks to ensure the strip on each step will be correctly aligned.

- *The maximum recommended length for installation in outdoor situations is 1.5 metres.*
- *There must be a 3mm gap between lengths. This allows for thermal expansion in extreme weather conditions and also aids in water drainage off the step tread.*
- *Leave a 3mm gap either side of built-in steps*

3. Preparation of the Strip

- Clean back of contrast strip with soft cloth and if necessary use methylated spirits (or similar solvent) to remove oil or grease
- Allow to dry for approximately 1 minute.

(For installations requiring adhesive & fixers go to step 8)

4. Applying the Adhesive

- Apply a 3mm zigzag bead of polyuretane adhesive (such as Wurth KD Bond and Seal or Bostik Seal n Flex FC) to the back of the strip, 3mm in from the edges.
- Take care to keep adhesive away from any drill holes.
- Continue along the length of the strip.

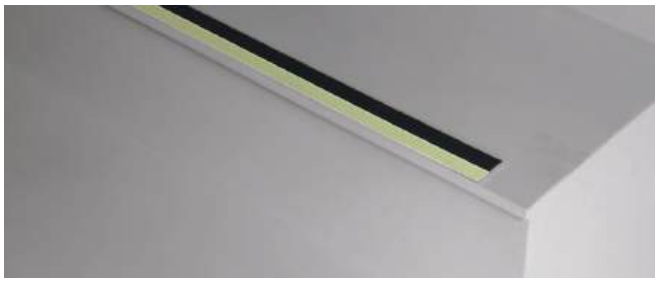
Adhesive Usage Per 600ml:

E2 - 30 metres	*E14 - 17 metres*	*N2 - 30 metres*
E3 - 22 metres	*ET14 - 17 metres*	*N3 - 22 metres*
E4 - 22 metres	*E15 - 17 metres*	*N5 - 17 metres*
E5- 17 metres	*E22 - 30 metres*	

Ecoglo can supply Wurth KD Bond and Seal in 600ml Sausage form with Applicator Gun.

5. Placement of the Strip

- Line up the strip with your alignment marks and position approximately 2-3mm back from the front straight edge of the step.
- Place in position with the photoluminescent (light green) component of the strip to the leading edge of the step (see image below).



Steps with exposed sides:
Ensure the nosing is set back from exposed side by at least 20mm to ensure the outer edge of the nosing does not present a sharp hazard.

Tile Steps:
If the tiles are not perfectly aligned then the contrast strip must be cut into pieces the width of each tile and placed so that the grout line is exposed.

Major Projects with On Site Cutting Step Edge Contrast

6. Apply Pressure to the Strip

- Apply even pressure to spread the adhesive beneath the strip using a hand roller.
- If necessary stand on each strip to ensure good contact between the strip and the step.

7. Allow the Adhesive to Cure

- Immediately following installation close off the area for a period of 8 hours to avoid the Ecoglo strip being moved whilst the adhesive is in the early stages of "cure".
- Wait until adhesive has fully cured (allow at least 24 hours) before trimming any excess from each strip with a sharp blade.

8. Installations requiring Adhesive and Fixers

a. Outdoor Timber installations - 2 stage process

Note: Indoor installations only require adhesive

For outdoor timber installations both adhesive and fixers should be used because installation onto outdoor timber surfaces varies due to the uneven nature of timber, the various types of timber (eg pine or kwila), the protective coating (eg paint or sealer) and seasonal temperature variances.

Stage 1:

- Apply adhesive as per steps 3-4 taking care to keep adhesive away from pre drilled holes.
- Place strip as per steps 5-6.
- Leave the adhesive to cure for 7 days before installing the fixers.

Stage 2:

- Place a screw fixer into each hole and drill in securely using a battery drill.
- Do not fully tighten the fixers to avoid compressing the adhesive.

For timber installations the strips should be pre-drilled through the anti-slip material. The table below shows the number of drill holes required to allow for the natural contraction and expansion of timber.

b. Concrete Installations

Note: Adhesive only is usually sufficient, however, if adhesive and fixers are preferred, follow the instructions below.
DO NOT use fixers without considering the effects of temperature variance and thermal expansion, especially outdoors. If in doubt contact Ecoglo.

- Position the strip approximately 2-3mm from the front straight edge of the step and using the pre-drilled holes mark where the fixers are to be placed.
- Using a 6mm masonry bit and a concrete drill, drill the hole that will house the plastic anchor.
- Wipe away any dust or debris.
- Place the anchor fully into the holes.
- Apply adhesive as per steps 3-4 taking care to keep adhesive away from the pre-drilled holes.
- Place strip as per steps 5-6.
- Place a screw fixer into each hole and drill in securely using a battery drill.
- Do not fully tighten the fixers to avoid compressing the adhesive.

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Installation Instructions For

Handrail Marker H Series

Wall Mounted and Freestanding Round Handrails

Ecoglo International Limited
Email: info@ecoglo.com
Ph: +64 3 348 3781
www.ecoglo.com

Handrail Marker - H Series Round Handrails

1. Preparation of Surface

- Thoroughly clean the surface with an industrial strength cleaner.
- Remove any loose paint or sealant and then allow the surface to dry.
- Handrail must be dry

2. Alignment

- To ensure the Ecoglo Handrail Strip is installed in line, place a string line, slightly off centre, from the top end of the handrail to the bottom.
- This will serve as a guide for where to place each strip accurately onto the rail.

3. Placing Strip onto Handrail

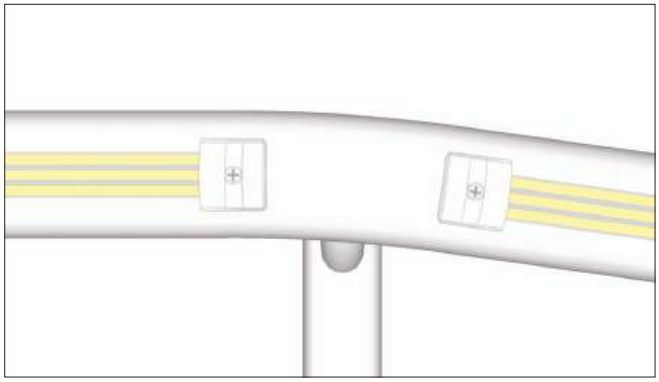
- Remove the backing paper from the tape
- Line up the outside edge with the string line. The strip should be positioned approximately 50mm from the end of the handrail.
- Press firmly down.
- Repeat the above steps for the full length of the handrail leaving a 5mm gap between each length of handrail strip.

Where strips are to be butted together, there must always be a 5mm expansion gap between them. This allows for expansion and contraction between the Ecoglo strip and the handrail surface and also aids in water drainage off the handrail.

- If the overall length of the handrail is longer than 1 metre as supplied, then the 1 metre lengths should be placed at each end of the handrail and a separate unit should be measured and cut for the middle section.

4. Bends and Curves on Handrails

- Under no circumstances should handrail product be installed on or around a curve. This includes bends at each end of the handrail.
- Set the strip 50mm from a bend or a curve.

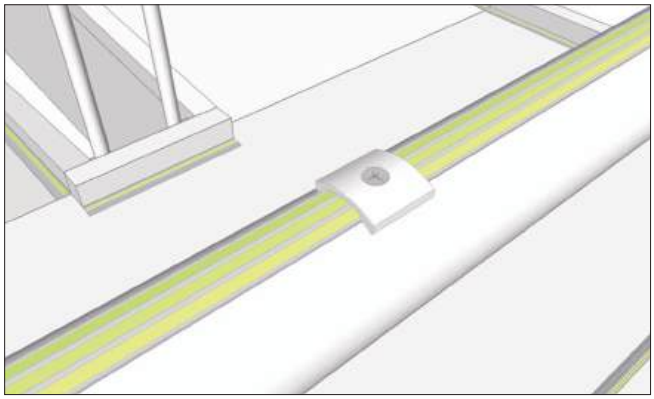


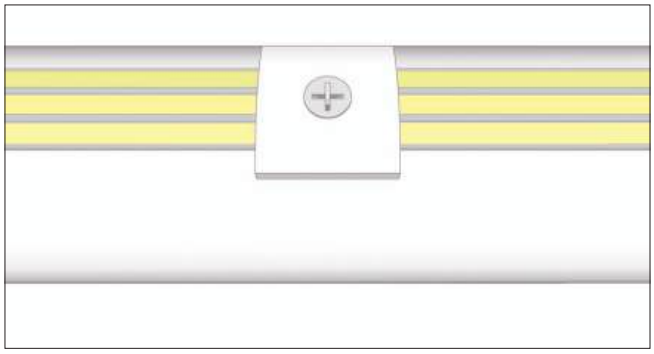
Handrail Marker - H Series Round Handrails

5. Placement of Joiner Caps

- Where a small gap (minimum of 5mm) has been left between lengths, Ecoglo recommends placing an Ecoglo HRJ3 Joiner Cap. This ensures no sharp edges are exposed while protecting the ends of the strips.
- The joiner cap is placed over both ends of each strip and secured with a screw (on timber handrails) or a rivet (on metal handrails).

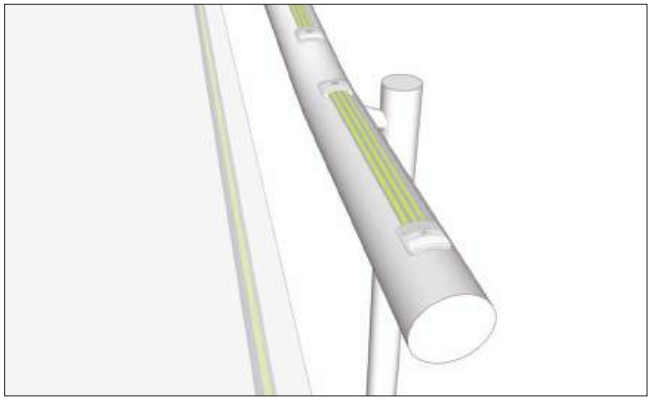
If no joiner caps are used, ensure edges are filed smooth and rounded following any cutting of the strip.





6. Placement of End Caps

- Ecoglo recommends placing an Ecoglo HREC3 End Cap on each end of handrail strip. This ensures no sharp edges are exposed while also protecting the end of the strip.
- The end cap is placed over the end of the strip and secured with a screw (on timber handrails) or a rivet (on metal handrails).



If no end caps are used, ensure edges are filed smooth and rounded following any cutting of the strip.

Rivets: (RIV3.2/10 - 3.2x10 Sealed Blind Rivets in White) included with Joiner Caps and End Caps.

Screws: STCQX419WHT - 4Gx19 Countersunk Square Drive Self Tapper in White

7. Mechanical Fixers (screws or rivets)

- If the installer has elected not to use end or joiner caps, mechanical fixers are still required.
- To ensure water tightness, Ecoglo recommends the use of sealed rivets where fixers are used on metal handrails.
- In all installations, indoor and outdoor, screws (for timber) or rivets (for metal) MUST also be used. Install one screw/rivet 10-15mm in from each end of each H series strip.
- For outdoor timber installations 5mm pan head screws are suitable. Screw down firmly but not so tight that the tape squashes under the strip. Install one screw 10-15mm in from each end and one screw in the middle of each H series strip.

Note: Flat Handrails

- Ecoglo G3-001 can be used on indoor handrails that have flat tops. The same method of installation applies. There are no End Caps or Joiner Caps available for flat handrails.

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V24.1

Installation Instructions For

Guidance Strips G Series (Tape)

Flat Surfaces

Ecoglo markers are to be installed only where there will be sufficient natural or artificial light to keep them charged whenever the building is occupied.

If unsure, contact Ecoglo

Ecoglo International Limited
Email: info@ecoglo.com
Ph: +64 3 348 3781
www.ecoglo.com

Guidance Strips G-Series Flat Surfaces

Ecoglo G-Series guidance strips are extremely versatile and can be applied on various types of surface, including walls, skirting board, floors, door frames, flat sided handrails and steps*. Generally, as long as the substrate is clean, flat and dry the product can be successfully installed.
Ecoglo G-Series guidance strips have a self-adhesive backing with a release tape for simple installation. (See Section 4 of these instructions if installing on handrails or, if in any doubt about adhesion).

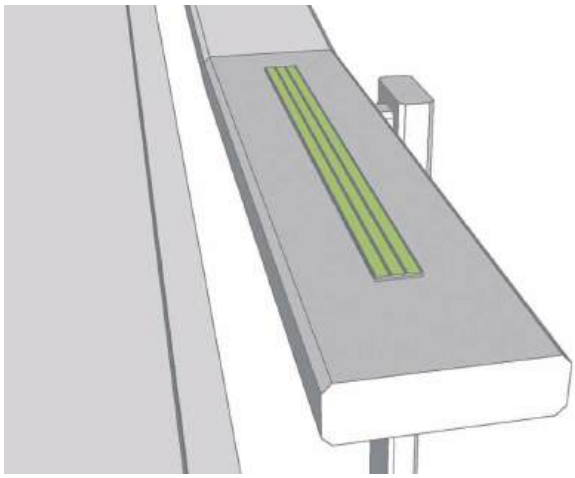
***Ecoglo G6-003 guidance strips are suitable for use on indoor steps which are not subject to daily use or heavy foot traffic. For outdoor steps, or steps which will be subjected to frequent or heavy foot traffic, visit www.ecoglo.com or contact Ecoglo at info@ecoglo.com for information on more suitable Ecoglo products.**

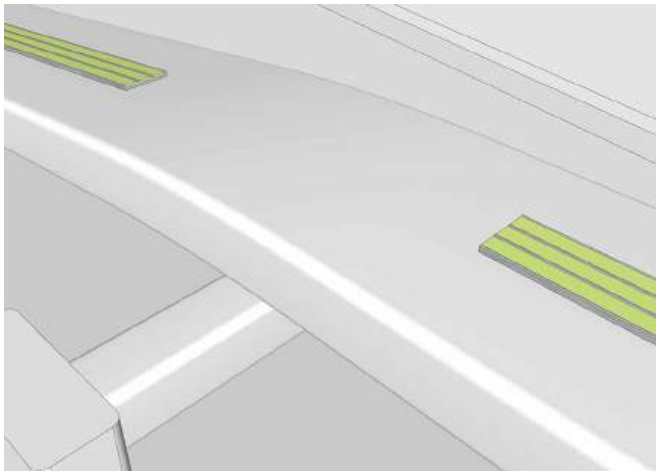
1. Preparation of Surface

- Thoroughly clean the surface with an industrial strength cleaner if necessary.
- Remove any loose paint or sealant and then allow the surface to dry.
- If the surface has been painted or coated, check that adhesive is compatible with the paint or seal coating.
  IF IN DOUBT REMOVE COATING.
- The tape is suitable for a temperature range of 0-40C.
- Maximum installation length is 1500mm.

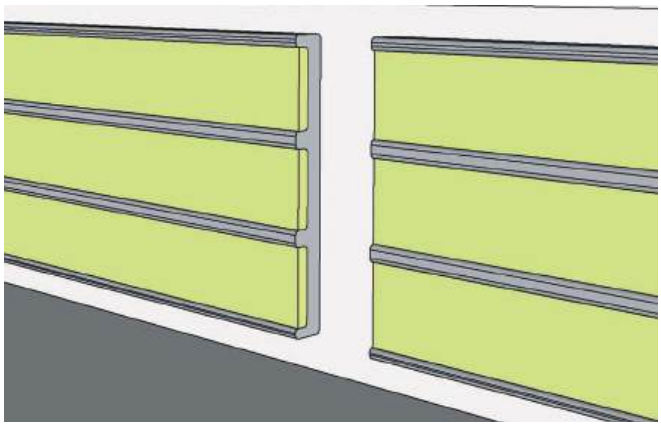
2. Positioning, Alignment of the Strips

- If installing on a flat handrail or other surface such as a wall, mark the position where the strip is to be placed. Use a chalkline, plumb-line or spirit level if necessary to ensure the line is straight.
- If installing on steps, mark 50mm from the left edge of the top step, and 50mm from the left edge of the bottom step. Place a string line between the marks to ensure the strip on each step will be correctly aligned. This will give a straight, true line.
- Offer up the strip to the surface it is to be attached to, to make sure both surfaces are parallel. If the strip does not sit perfectly flat against the surface without being held in place, carefully bend the strip until it sits perfectly flat against the surface.





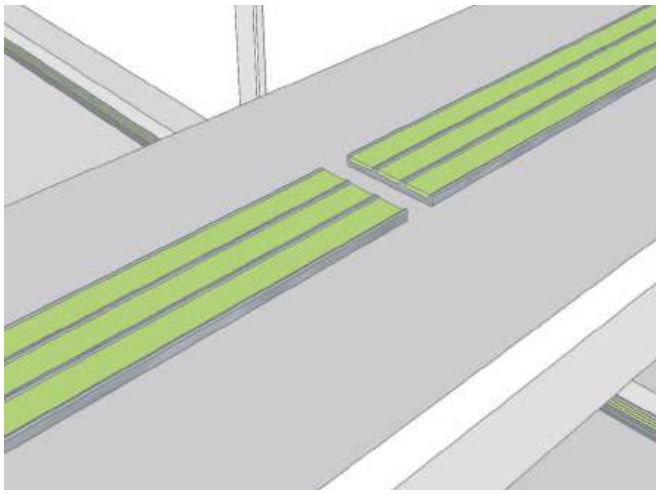
Do not bend guidance strips over bends. Set the strip 50mm from the bend.



Where strips are to be butted together, there must always be a 3mm expansion gap between them. This allows for expansion and contraction between the Ecoglo strip and the building surface.

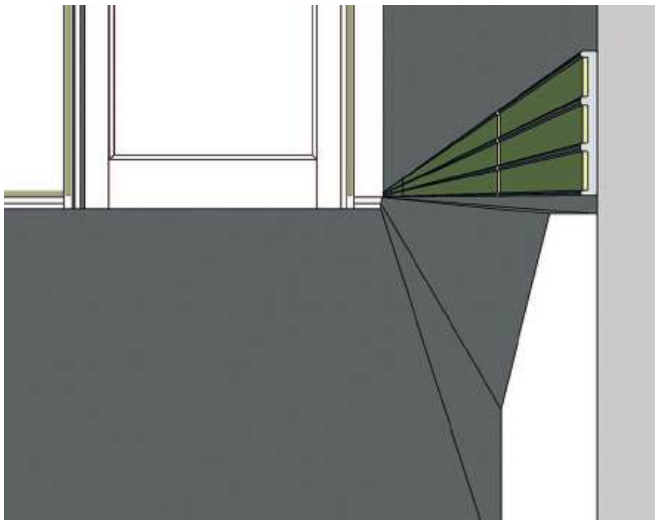
3. Placement of Adhesive-backed Strip

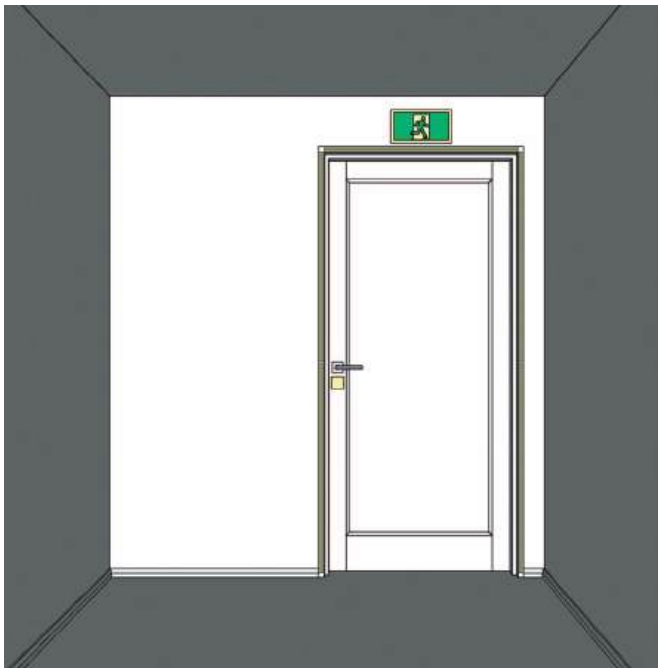
- Carefully peel off the release-tape backing from the strip.
- Carefully line the strip up with any alignment marks.
- Press the strip firmly in place to ensure even contact between the adhesive tape and the surface to which it is being applied.



Guidance Strips G-Series Flat Surfaces

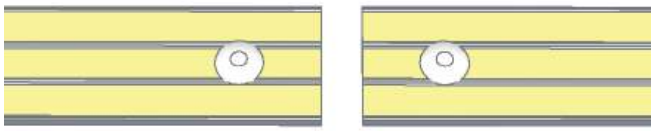
Guidance strip can be used to mark corridors, lobbies and indoor lengths of path and can be mounted either on the floor within 100mm of the wall, or on the wall within 100mm of the floor. Gaps of 3mm must be placed between strips.





4. Mechanical Fixers (Screws or Rivets)

- Where the strip is used to mark handrails, indoors and outdoors, screws (for timber) or rivets (for metal) MUST also be used. Install one screw/rivet 10-15mm in from each end of each G series strip.
- For outdoor timber installations screws MUST also be used so that the adhesive tape isn't able to lift if the timber distorts or absorbs moisture due to normal weather conditions. 5mm pan head screws are suitable to be screwed down firmly but not so tight that the tape squashes under the strip. Install one screw 10-15mm in from each end and one screw in the middle of each strip.
- If in doubt about the adhesion of the strips to any substrate, use screws/rivets for additional security. Install one 10-15mm in from each end and one in the middle of each strip.



For guidance strips on handrails used in schools or public places, screws or rivets must be installed 10 – 15mm in from the end of each strip.

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V24.1

Installation Instructions For

Guidance Strips G Series (Adhesive)

Flat Surfaces

Ecoglo markers are to be installed only where there will be sufficient natural or artificial light to keep them charged whenever the building is occupied.

If unsure, contact Ecoglo

Ecoglo International Limited
Email: info@ecoglo.com
Ph: +64 3 348 3781
www.ecoglo.com

Guidance Strips G-Series Flat Surfaces

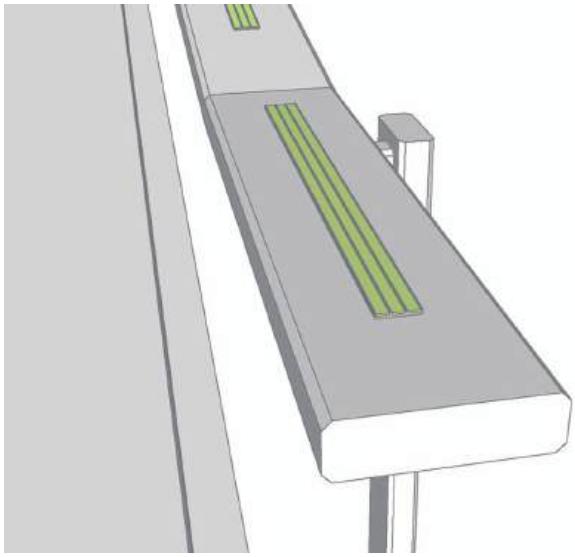
Ecoglo G-Series guidance strips are extremely versatile and can be applied on various types of surface, including walls, skirting board, floors, door frames and flat sided handrails. Generally, as long as the substrate is clean, flat and dry the product can be successfully installed.
(If installing on handrails or, if in doubt about adhesion, see Section 8 of these instructions.)

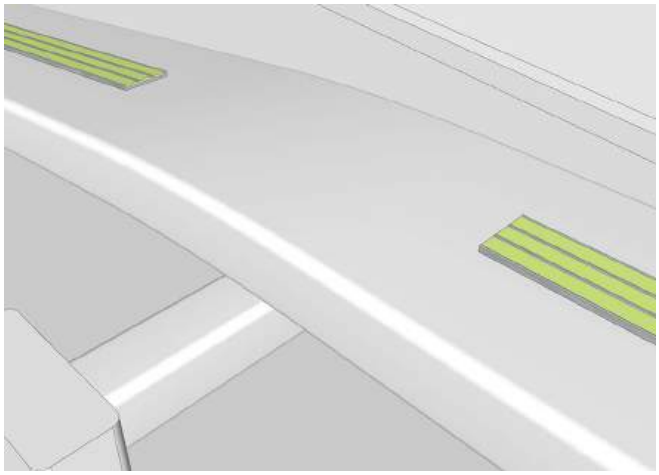
1. Preparation of Surface

- Thoroughly clean the surface with an industrial strength cleaner if necessary.
- Remove any loose paint or sealant and then allow the surface to dry.
- If the surface has been painted or coated, check that adhesive is compatible with the paint or seal coating.
  IF IN DOUBT REMOVE COATING.
- Maximum installation length is 1500mm.

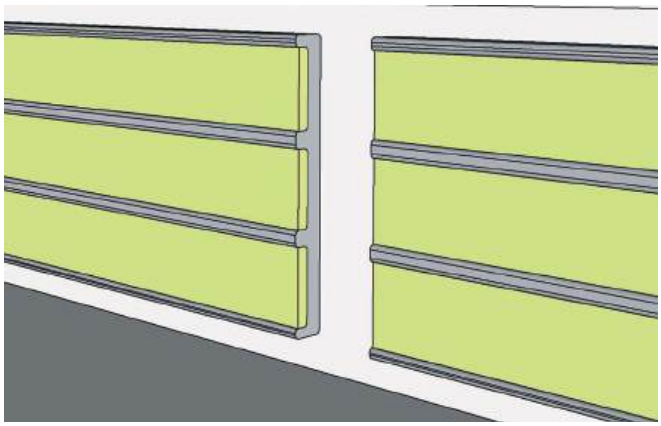
2. Positioning, Alignment of the Strips

- If installing on a flat handrail or other surface such as a wall, mark the position where the strip is to be placed. Use a chalkline, plumb-line or spirit level if necessary to ensure the line is straight.
- Offer up the strip to the surface it is to be attached to, to make sure both surfaces are parallel. If the strip does not sit perfectly flat against the surface without being held in place, carefully bend the strip until it sits perfectly flat against the surface.





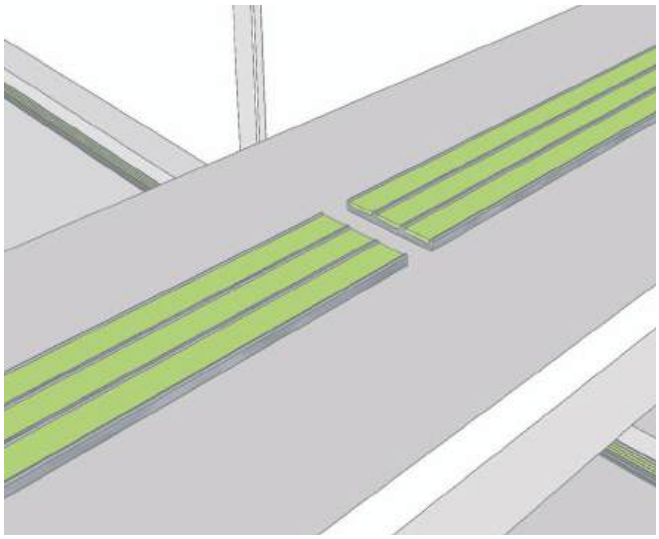
Do not bend guidance strips over bends. Set the strip 50mm from the bend.



Where strips are to be butted together, there must always be a 3mm expansion gap between them. This allows for expansion and contraction between the Ecoglo strip and the building surface.

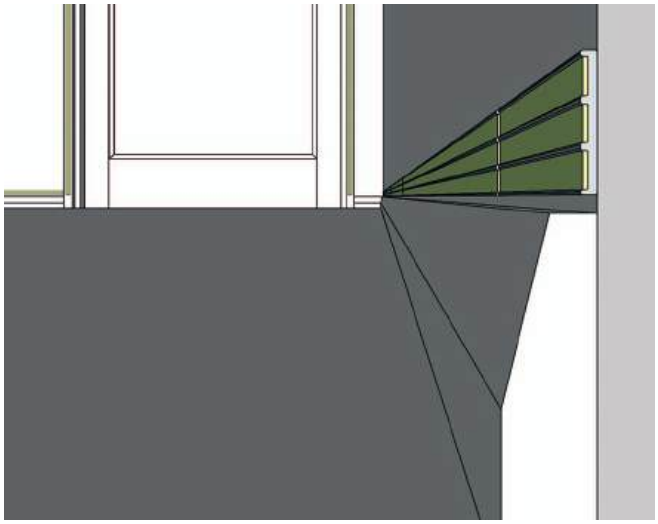
3. Preparation of the Strip

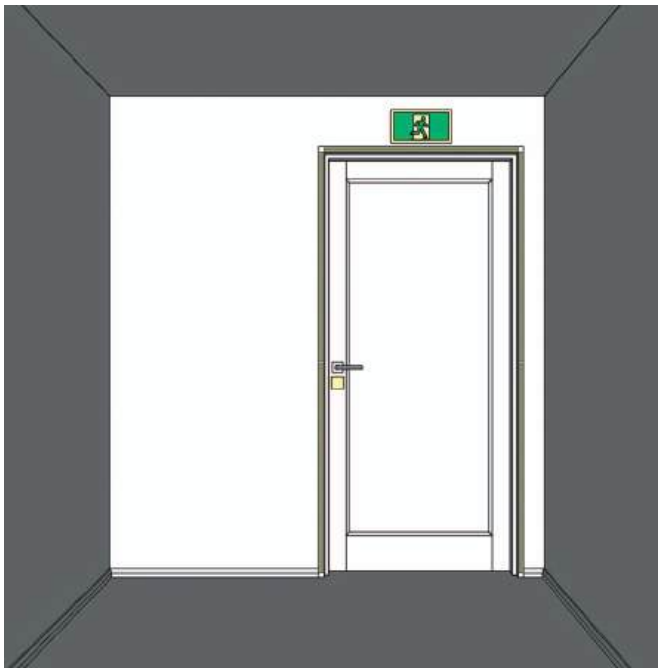
- Clean back of the strip with a soft cloth and if necessary use methylated spirits or similar solvent to remove oil or grease.
- Allow to dry for approximately 1 minute.



Guidance Strips G-Series Flat Surfaces

Guidance strip can be used to mark corridors, lobbies and indoor lengths of path and can be mounted either on the floor within 100mm of the wall, or on the wall within 100mm of the floor. Gaps of 3mm must be placed between strips.





4. Applying the Adhesive

- Apply a 3mm bead of polyurethane adhesive (such as Wurth KD Bond and Seal or Bostik Seal'n'Flex FC) in a wave pattern along the full length of the back of the strip, keeping 3mm in from the edges.

  Adhesive Usage: 80 metres per 600ml.

  Ecoglo can supply Wurth KD Bond and Seal in 600ml Sausage form with Applicator Gun.

5. Placement of the Strip

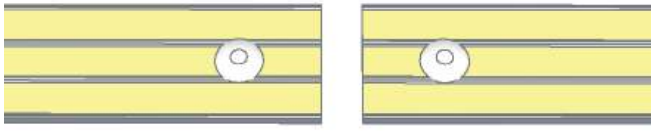
- Line up the strip with your alignment marks.
  Press the strip firmly in place to ensure even contact between the strip and the surface to which it is being applied.

6. Apply Pressure to the Strip

- Apply even pressure to spread the adhesive beneath the strip using a hand roller.

7. Curing of Adhesive

- Use an alcohol wipe to remove any spillover adhesive.
  Allow approximately 24 hours for adhesive to cure.



For guidance strips on handrails used in schools or public places, screws or rivets must be installed 10 – 15mm in from the end of each strip.

8. Mechanical Fixers (Screws or Rivets)

- Where the strip is used to mark handrails, indoors and outdoors, screws (for timber) or rivets (for metal) MUST also be used. Install one screw/rivet 10-15mm in from each end of each G series strip.
- For outdoor timber installations screws MUST also be used so that the strip isn't able to lift if the timber distorts or absorbs moisture due to normal weather conditions.
  5mm pan head screws are suitable to be screwed down firmly. Install one screw 10-15mm in from each end and one screw in the middle of each strip.
- If in doubt about the adhesion of the strips to any substrate, use screws/rivets for additional security. Install one 10-15mm in from each end and one in the middle of each strip.

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Installation Instructions For

Signs (Pre-fitted release tape)

(Incuding Floor Identification Signs and Door Handle Markers)

Surface Mounted Signs

Ecoglo signs are to be installed only where there will be sufficient natural or artificial light to keep them charged whenever the building is occupied.

If unsure, contact Ecoglo

Ecoglo International Limited
Email: info@ecoglo.com
Ph: +64 3 348 3781
www.ecoglo.com

Installation Instructions for Signs (Pre-fitted release tape)

1. Preparation of Surface

- Thoroughly clean the surface with industrial strength cleaner if necessary.
- Remove any loose paint or sealant then allow surface to dry.

2. Positioning of Signs

- Mark position on the door or wall where sign is to be placed.

Note:

Floor Identification signs – the mounting height must be in accordance with local and national codes.

3. Placement of Signs

- Peel the protective layer from the back of the sign to expose the adhesive ensuring nothing comes into contact with it.
- Line the sign up with the markings you made.
- Apply pressure evenly over the sign to fix it fast to the surface.

4. Maintenance of Signs

- Regular dusting with a soft cloth or brush is recommended to keep the sign clean.
- If the sign is noticeably dirty, clean with a sponge or cloth.

See Cleaning Instructions for more detailed information.

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Appendix 4

Ecoglo International Limited

Product Test Reports

Contents:

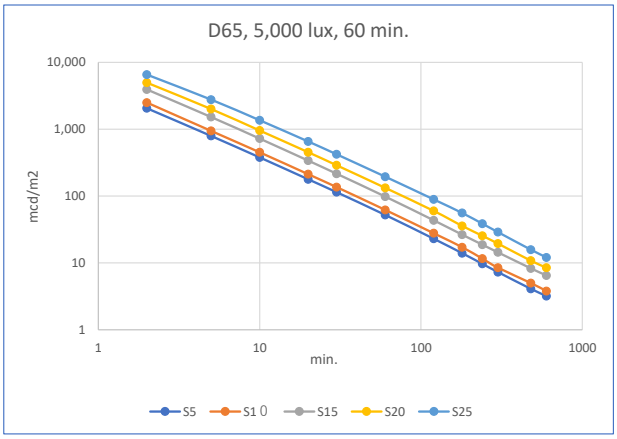
Brightness Analysis of Photoluminescent Rigid Sheet Manufacturered by Ecoglo International Ltd.

Reporting date: September 26, 2018

Analyzer: Topcon BM-5AS
Excitation Source: TOSHIBA 20W Fluorescent Lamp FL20S-D-EDL-D65
Excitation Condition: D65 5,000 lux, 60 minutes

(mcd/m2)

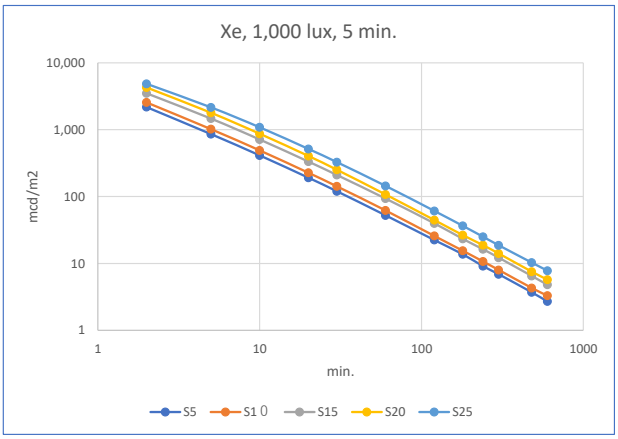
Time after removal of ex. (min.)	S5	S1 0	S15	S20	S25
2	2,058	2,504	3,930	4,971	6,556
5	794	944	1,522	2,006	2,772
10	379	452	725	956	1,362
20	178	212	339	453	656
30	114	136	216	289	422
60	52.3	62.2	98.5	132.9	195.3
120	23.0	27.8	43.4	60.0	89.2
180	14.0	17.2	26.5	35.8	55.9
240	9.7	11.6	18.8	25.5	38.7
300	7.3	8.5	14.4	19.5	28.9
480	4.1	5.0	8.3	10.8	15.8
600	3.2	3.8	6.5	8.5	12.1



Analyzer: Topcon BM-5AS
Excitation Source: Hamamatsu Photonics 150W Xenon lamp L2175
Excitation Condition: Xe 1,000 lux, 5 minutes

(mcd/m2)

Time after removal of ex. (min.)	S5	S1 0	S15	S20	S25
2	2,179	2,559	3,505	4,284	4,861
5	860	1,019	1,468	1,794	2,160
10	413	491	714	871	1,087
20	192	227	334	405	517
30	120	142	210	252	327
60	52.4	62.0	93.4	107.5	144.4
120	22.4	25.8	39.8	44.6	61.1
180	13.7	15.5	23.3	26.6	36.5
240	9.1	10.7	16.3	18.8	25.1
300	6.9	8.0	12.2	14.1	18.7
480	3.7	4.3	6.5	7.5	10.3
600	2.7	3.3	4.8	5.7	7.8



Allunga Exposure Laboratory

DURABILITY

Tel: + 61 7 4778 1697
Fax: +61 7 4422 0009
Lat 19°S, 147°E

Email:test@allunga.com.au
Web:www.allunga.com.au

Mail: Locked Bag 369, Aitkenvale Mail Centre, Queensland, AUSTRALIA 4814

Attention **Delwyn Ralston**

Ecoglo International Ltd

77 Kingsley St
Sydenham Christchurch 8023
New Zealand

Report Name **Samples / 1-6 @ 20 min @ 150°C**
Duration 20 min @ 150°C
Your Reference Samples / 1-6
Our Reference 20D06WW1-6
Report Date 07-Apr-2020

Exposure Type: See Below
Date Exposed 06-Apr-2020

Book & Page: 909/66
Site: Townsville (Main)

Authorised AEL Signatory: Chris Cooper

Notes:

EXPOSURE
Expose samples for 20 minutes at 150°C, as per client instructions.

Instrument: WiseVen WOF-105 Precision Laboratory Oven.

REPORT STANDARDS

VISUAL ASSESSMENT OF CHANGE
Based on Standard: AS/NZS 1580.481.1:1998 Coatings Exposed to Weathering (12 Parameters of Change)
Degree of colour change - AS/NZS 1580.481.1.12
Degree of Blistering - AS/NZS 1580.481.1.9 Blistering
Degree of distortion/shrinkage

AS/NZS, ISO Rating scale: 0-5. 0 = No change, 5 = Complete change

NOTE: AS/NZS 1580.481.1.9 Degree of Blistering
Rating is in two parts, Density (D) and Size (S)
Method 481.1.1.9: Degree of Blistering
0 = None
1 = Less than few
2 = Few
3 = Medium
4 = Medium-dense
5 = Dense

Note: Report prepared >24 Hours post exposure to allow any colour changes associated with energy absorption/radiation to dissipate. Photos taken at 45 minutes and at 24 hours.
Exposure conducted: 06 April 2020.
Report Prepared: 07 April 2020.

Evaluation based on As 1580.481

1.1	General Appearance
1.2	Discolouration
1.3	Dirt Collection
1.4	Dirt Retention
1.5	Change of Gloss
1.6 (E)	Erosion
1.7 (F)	Checking
1.8 (G)	Cracking
1.9 (H)	Flaking & Peeling

Colour: D65/10

1.9 (J)	Blistering
(K)	Visible Rusting
1.11 (L)	Chalking
1.13	Mould, Algae, Fungus
FIC	Ford Image Clarity
FD	Film Defects
d	Darker
l	lighter
r	redder

All Samples Tested As Received

b	bluer
y	yellower
g	greyer
wh	whiter
f	fade
i	increase
c	continued
w	wide variation
t	trace

length measurements in mm

m	includes mould
loc	localized
nnc	no noticeable change
sd	surface distortion
ws	water spotting
af	adhesion failure
S	slight
md	moderate
sv	servere

Allunga Exposure Laboratory

DURABILITY

Tel: + 61 7 4778 1697
Fax: +61 7 4422 0009
Lat 19°S, 147°E

Email:test@allunga.com.au
Web:www.allunga.com.au

Mail: Locked Bag 369, Aitkenvale Mail Centre, Queensland, AUSTRALIA 4814

Attention **Delwyn Ralston**

Ecoglo International Ltd

77 Kingsley St
Sydenham Christchurch 8023
New Zealand

Report Name **Samples / 1-6 @ 20 min @ 150°C**
Duration 20 min @ 150°C
Your Reference Samples / 1-6
Our Reference 20D06WW1-6
Report Date 07-Apr-2020

Exposure Type: See Below
Date Exposed 06-Apr-2020

Book & Page: 909/66
Site: Townsville (Main)

Authorised AEL Signatory: Chris Cooper

Client Ref	Colour Change	Blistering	Distortion
Hazard tape	0 t	0	1-2
G3-001	0	0	0
S5 sign (1)	0	0	0
S5 sign (2)	0	0	0
S20	0	0	0
A20	1 d g	-	5

Client Ref.	Comments
Hazard tape	Tape has an 'orange peel' wrinkling across whole surface. See photographs
A20	Sample melted onto substrate trapping air in small voids that subsequently expanded giving appearance of blistering, substrate distorted as sample cooled. Exposed material appears a trace darker and greener 24 hours after exposure. See photographs.

Evaluation based on As 1580.481

1.1	General Appearance
1.2	Discolouration
1.3	Dirt Collection
1.4	Dirt Retention
1.5	Change of Gloss
1.6 (E)	Erosion
1.7 (F)	Checking
1.8 (G)	Cracking
1.9 (H)	Flaking & Peeling
1.9 (J)	Blistering
(K)	Visible Rusting
1.11 (L)	Chalking
1.13	Mould, Algae, Fungus
FIC	Ford Image Clarity
FD	Film Defects
d	Darker
l	lighter
r	redder

Colour: D65/10

All Samples Tested As Received

b	bluer
y	yellower
g	greyer
wh	whiter
f	fade
i	increase
c	continued
w	wide variation
t	trace

length measurements in mm

m	includes mould
loc	localized
nnc	no noticeable change
sd	surface distortion
ws	water spotting
af	adhesion failure
S	slight
md	moderate
sv	servere

CERTIFICATE OF COMPLIANCE

Certificate Number	UL-US-L45151-11-03109102-1
Report Reference	SA45151-20190130
Date	13-Sep-2021
Issued to:	Ecoglo International Ltd 77 Kingsley St Christchurch New Zealand 8023
This is to certify that representative samples of	IMZI - Luminous Egress-path-marking Systems See Addendum Page for Product Designation(s).
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 1994, 4th Ed., Issue Date: 2015-05-29
Additional Information:	See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-L45151-11-03109102-1
Report Reference SA45151-20190130
Date 13-Sep-2021

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
E14-035	Photoluminescent Floor proximity egress path marking systems
E14-055	Photoluminescent Floor proximity egress path marking systems
E14-065	Photoluminescent Floor proximity egress path marking systems
E14-075	Photoluminescent Floor proximity egress path marking systems
E15-073	Photoluminescent Floor proximity egress path marking systems
E2-031	Photoluminescent Floor proximity egress path marking systems
E2-051	Photoluminescent Floor proximity egress path marking systems
E2-061	Photoluminescent Floor proximity egress path marking systems
E2-071	Photoluminescent Floor proximity egress path marking systems
E2031	Photoluminescent Floor proximity egress path marking systems
E2051	Photoluminescent Floor proximity egress path marking systems
E2061	Photoluminescent Floor proximity egress path marking systems
E2071	Photoluminescent Floor proximity egress path marking systems
E3-031	Photoluminescent Floor proximity egress path marking systems
E3-051	Photoluminescent Floor proximity egress path marking systems
E3-061	Photoluminescent Floor proximity egress path marking systems
E3-071	Photoluminescent Floor proximity egress path marking systems
E3031	Photoluminescent Floor proximity egress path marking systems
E3051	Photoluminescent Floor proximity egress path marking systems

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-L45151-11-03109102-1
Report Reference SA45151-20190130
Date 13-Sep-2021

E3061	Photoluminescent Floor proximity egress path marking systems
E3071	Photoluminescent Floor proximity egress path marking systems
E4-031	Photoluminescent Floor proximity egress path marking systems
E4-033	Photoluminescent Floor proximity egress path marking systems
E4-051	Photoluminescent Floor proximity egress path marking systems
E4-053	Photoluminescent Floor proximity egress path marking systems
E4-061	Photoluminescent Floor proximity egress path marking systems
E4-063	Photoluminescent Floor proximity egress path marking systems
E4-071	Photoluminescent Floor proximity egress path marking systems
E4-073	Photoluminescent Floor proximity egress path marking systems
E4031	Photoluminescent Floor proximity egress path marking systems
E4051	Photoluminescent Floor proximity egress path marking systems
E4061	Photoluminescent Floor proximity egress path marking systems
E4071	Photoluminescent Floor proximity egress path marking systems
G3-001	Photoluminescent Floor proximity egress path marking systems
G3001	Photoluminescent Floor proximity egress path marking systems
G4-001	Photoluminescent Floor proximity egress path marking systems
G4001	Photoluminescent Floor proximity egress path marking systems
G5-001	Photoluminescent Floor proximity egress path marking systems
G5001	Photoluminescent Floor proximity egress path marking systems
G6-001	Photoluminescent Floor proximity egress path marking systems
G6-003	Photoluminescent Floor proximity egress path marking systems
G6001	Photoluminescent Floor proximity egress path marking systems

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-L45151-11-03109102-1
Report Reference SA45151-20190130
Date 13-Sep-2021

H3-001	Photoluminescent Floor proximity egress path marking systems
H3001	Photoluminescent Floor proximity egress path marking systems
H5-001	Photoluminescent Floor proximity egress path marking systems
H5-003	Photoluminescent Floor proximity egress path marking systems
H5001	Photoluminescent Floor proximity egress path marking systems
S5-ARD1010	Photoluminescent Floor proximity egress path marking systems
S5-ARS1010	Photoluminescent Floor proximity egress path marking systems
S5-DHM1010	Photoluminescent Floor proximity egress path marking systems
S5-RM2010	Luminous Egress-Path-Marking Systems
S5-RMDA2010	Luminous Egress-Path-Marking Systems
S5-RMDL2010	Luminous Egress-Path-Marking Systems
S5-RMDR2010	Luminous Egress-Path-Marking Systems
S5-RML2010	Luminous Egress-Path-Marking Systems
S5-RMR2010	Luminous Egress-Path-Marking Systems
S5-RMUA2010	Photoluminescent Floor proximity egress path marking systems
S5-RMUL2010	Luminous Egress-Path-Marking Systems
S5-RMUR2010	Luminous Egress-Path-Marking Systems

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number	UL-CA-L45151-21-03109102-1
Report Reference	SA45151-20190130
Date	13-Sep-2021
Issued to:	Ecoglo International Ltd 77 Kingsley St Christchurch New Zealand 8023
This is to certify that representative samples of	IMZI7 - Luminous Egress-path-marking Systems Certified for Canada See Addendum Page for Product Designation(s). Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	ULC S572, 2nd Ed., Issue Date: 2017-02-01
Additional Information:	See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-L45151-21-03109102-1
Report Reference SA45151-20190130
Date 13-Sep-2021

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
E14-035	Photoluminescent Floor proximity egress path marking systems
E14-055	Photoluminescent Floor proximity egress path marking systems
E14-065	Photoluminescent Floor proximity egress path marking systems
E14-075	Photoluminescent Floor proximity egress path marking systems
E15-073	Photoluminescent Floor proximity egress path marking systems
E2-031	Photoluminescent Floor proximity egress path marking systems
E2-051	Photoluminescent Floor proximity egress path marking systems
E2-061	Photoluminescent Floor proximity egress path marking systems
E2-071	Photoluminescent Floor proximity egress path marking systems
E2031	Photoluminescent Floor proximity egress path marking systems
E2051	Photoluminescent Floor proximity egress path marking systems
E2061	Photoluminescent Floor proximity egress path marking systems
E2071	Photoluminescent Floor proximity egress path marking systems
E3-031	Photoluminescent Floor proximity egress path marking systems
E3-051	Photoluminescent Floor proximity egress path marking systems
E3-061	Photoluminescent Floor proximity egress path marking systems
E3-071	Photoluminescent Floor proximity egress path marking systems
E3031	Photoluminescent Floor proximity egress path marking systems
E3051	Photoluminescent Floor proximity egress path marking systems

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-L45151-21-03109102-1
Report Reference SA45151-20190130
Date 13-Sep-2021

E3061	Photoluminescent Floor proximity egress path marking systems
E3071	Photoluminescent Floor proximity egress path marking systems
E4-031	Photoluminescent Floor proximity egress path marking systems
E4-033	Photoluminescent Floor proximity egress path marking systems
E4-051	Photoluminescent Floor proximity egress path marking systems
E4-053	Photoluminescent Floor proximity egress path marking systems
E4-061	Photoluminescent Floor proximity egress path marking systems
E4-063	Photoluminescent Floor proximity egress path marking systems
E4-071	Photoluminescent Floor proximity egress path marking systems
E4-073	Photoluminescent Floor proximity egress path marking systems
E4031	Photoluminescent Floor proximity egress path marking systems
E4051	Photoluminescent Floor proximity egress path marking systems
E4061	Photoluminescent Floor proximity egress path marking systems
E4071	Photoluminescent Floor proximity egress path marking systems
G3-001	Photoluminescent Floor proximity egress path marking systems
G3001	Photoluminescent Floor proximity egress path marking systems
G4-001	Photoluminescent Floor proximity egress path marking systems
G4001	Photoluminescent Floor proximity egress path marking systems
G5-001	Photoluminescent Floor proximity egress path marking systems
G5001	Photoluminescent Floor proximity egress path marking systems
G6-001	Photoluminescent Floor proximity egress path marking systems
G6-003	Photoluminescent Floor proximity egress path marking systems
G6001	Photoluminescent Floor proximity egress path marking systems

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-L45151-21-03109102-1
Report Reference SA45151-20190130
Date 13-Sep-2021

H3-001	Photoluminescent Floor proximity egress path marking systems
H3001	Photoluminescent Floor proximity egress path marking systems
H5-001	Photoluminescent Floor proximity egress path marking systems
H5-003	Photoluminescent Floor proximity egress path marking systems
H5001	Photoluminescent Floor proximity egress path marking systems
S5-ARD1010	Photoluminescent Floor proximity egress path marking systems
S5-ARS1010	Photoluminescent Floor proximity egress path marking systems
S5-DHM1010	Photoluminescent Floor proximity egress path marking systems
S5-RM2010	Luminous Egress-Path-Marking Systems
S5-RMDA2010	Luminous Egress-Path-Marking Systems
S5-RMDL2010	Luminous Egress-Path-Marking Systems
S5-RMDR2010	Luminous Egress-Path-Marking Systems
S5-RML2010	Luminous Egress-Path-Marking Systems
S5-RMR2010	Luminous Egress-Path-Marking Systems
S5-RMUA2010	Photoluminescent Floor proximity egress path marking systems
S5-RMUL2010	Luminous Egress-Path-Marking Systems
S5-RMUR2010	Luminous Egress-Path-Marking Systems

Bruce Mahrenholz, Director North American Certification Program

UL LLC

Number of pages in this package ___9_

CLIENT INFORMATION	
Company Name	**ECOGLO INTERNATIONAL LTD.**
Address	77 Kingsley St Christchurch, 8023 New Zealand

AUDIT INFORMATION:			
Description of Tests	Per Standard No. UL 410	Edition/ Revision Date	Third Dated October 25, 2006
[X] Tests Conducted by +	Aaron Messinger Printed Name	*Aaron J. Messinger* Signature	
[ ] UL Staff witnessing testing (WTDP only) **[ ]**Authorized Signatory (CTDP, TPTDP, TCP)	Printed Name	Signature, and include date for CTDP, TPTDP, TCP	
Reviewed and accepted by qualified Project Handler	Printed Name	Signature	

[ ] The following tests conducted in accordance with UL _____ were considered representative of the same tests required by Canadian Standard, _____.

TESTS TO BE CONDUCTED:			
Test No.	Done	Test Name	**[ ]** Comments/Parameters **[ ]** Tests Conducted by ++
1	11/12/2018	SLIP RESISTANCE CHARACTERISTICS: WCM	

Instructions -
1 - When all tests are conducted by one person, name can be inserted here instead of including name on each page containing data.
2 - When test conducted by more than one person, name of person conducting the test can be inserted next to the test name instead of including name on each page containing data. Test dates may be recorded here instead of entering test dates on the individual datasheet pages.
3 - Indication of compliance is optional. See the datasheet for each test for compliance.
4 – Link to separate data files for a test can be inserted here. The link must be to a server that is accessible to UL staff, that provides for backup, required retention periods and a path, including file name that does not change and result in a broken link. Not applicable to DAP.

If noncompliant test results are obtained, provide this data to a qualified project handler for further processing.

Special Instructions -

[X] Unless specified otherwise in the individual Methods, the tests shall be conducted under the following ambient conditions. Confirmation of these conditions shall be recorded at the time the test is conducted.

Ambient Temperature, C	23 ± 2	Relative Humidity, %	50 ± 4	Barometric Pressure, mBar	±

[ ] No general environmental conditions are specified in the Standard(s) or have been identified that could affect the test results or measurements.

RISK ANALYSIS RELATED TO TESTING PERFORMANCE:

The following types of risks have been identified. Take necessary precautions. This list is not all inclusive.

[ ] Electric shock	**[ ]** Radiation
[ ] Energy related hazards	**[ ]** Chemical hazards
[ ] Fire	**[ ]** Noise
[ ] Heat related hazards	**[ ]** Vibration
[ ] Mechanical	**[X]** Other (Specify) **Slip Resistance**

TEST LOCATION: (To be completed by Staff Conducting the Testing)
[X]UL or Affiliate **[]**WTDP **[]**TPTDP
Company Name: **UL Verification Services.**
Address: Holland MI.

TEST EQUIPMENT INFORMATION

[X] UL test equipment information is recorded on Meter Use.

[ ] UL test equipment information is recorded on <<insert location and local laboratory equipment system identification.>>

Inst. ID No.	Instrument Type	Test Number +, Test Title or Conditioning	Function /Range	Last Cal. Date	Next Cal. Date

+ - If Test Number is used, the Test Number must be identified on the data sheet pages or on the Data Sheet Package cover page.

The following additional information is required when using client's or rented equipment. The Inst. ID No. below corresponds to the Inst. ID No. above.

Inst. ID No.	Make/Model/Serial Number/Asset No.

[ ] Test equipment information is recorded on UL's Laboratory Project Management (LPM)/Laboratory Equipment Management (LEM) database. (This statement may be selected only if datasheets are completed electronically at a UL facility).

TEST SAMPLE IDENTIFICATION:

The table below is provided to provide correlation of sample numbers to specific product related information. Refer to this table when a test identifies a test sample by "Sample No." only.

Sample Card No.	Date Received	[ ] Test No.	Sample No.	Manufacturer, Product Identification and Ratings
1856715	10/09/2018	1	1	ECOGLO INTERNATIONAL LTD, PL Path Marking Models E4-073 WCM
1856715	10/09/2018	1	2	ECOGLO INTERNATIONAL LTD, PL Path Marking Model E14-075 WCM

+ - If Test Number is used, the Test Number or Numbers the sample was used in must be identified on the data sheet pages or on the Data Sheet Package cover page.

[ ] Sampling Procedure -

SLIP RESISTANCE CHARACTERISTICS: (WCM)

WCM Material: Model E4-073

METHOD

[X] A sample of the material was tested as received after it was brushed or wiped clean to remove any surface contaminants.

[X] Additionally, a second sample of the material was tested after belt sanding with 1/2 (60) grit aluminum oxide paper for 1 minute and brushed or wiped clean to remove surface contaminants.

The slip resistance characteristics of the material were measured in accordance with the established and standardized practice of UL LLC and in accordance with the latest edition of the Standard for Slip Resistance of Floor Surface Materials, UL 410.

RESULTS

(As received)

Sample Orientation	Coefficient of Friction
First Quadrant	0.59
Adjacent Quadrant	0.54
180 degrees from First Quadrant	0.60
180 degrees from Adjacent Quadrant	0.54
Average	**0.56**

[X] The average static coefficient of friction of the four quadrants of the test sample **[was]** **[~~was not~~]** at least 0.50 and the individual static coefficients of friction **[was]** **[~~was not~~]** at least 0.45.

SLIP RESISTANCE CHARACTERISTICS: (WCM) (CONT'D)

WCM Material: Model E4-073

wide

(Belt Sanded)

Sample Orientation	Coefficient of Friction
First Quadrant	0.55
Adjacent Quadrant	0.68
180 degrees from First Quadrant	0.57
180 degrees from Adjacent Quadrant	0.69
Average	**0.62**

[X] The average static coefficient of friction of the four quadrants of the test sample **[was]** **[~~was not~~]** at least 0.50 and the individual static coefficients of friction **[was]** **[~~was not~~]** at least 0.45.

Note to Lab:
If the minimum and maximum run values vary by greater than 0.06, please re-conduct the test. If the second set minimum and maximum values vary greater than 0.06, please contact the engineer.

Slip Resistance Test Conditions

AMBIENT TEMPERATURE	**22.5°C**	Relative Humidity	**49.1%**

SLIP RESISTANCE CHARACTERISTICS: (WCM)

WCM
Material: Model E14-075

METHOD

[X] A sample of the material was tested as received after it was brushed or wiped clean to remove any surface contaminants.

[X] Additionally, a second sample of the material was tested after belt sanding with 1/2 (60) grit aluminum oxide paper for 1 minute and brushed or wiped clean to remove surface contaminants.

The slip resistance characteristics of the material were measured in accordance with the established and standardized practice of UL LLC and in accordance with the latest edition of the Standard for Slip Resistance of Floor Surface Materials, UL 410.

RESULTS

(As received)

Sample Orientation	Coefficient of Friction
First Quadrant	0.64
Adjacent Quadrant	0.56
180 degrees from First Quadrant	0.68
180 degrees from Adjacent Quadrant	0.52
Average	**0.60**

[X] The average static coefficient of friction of the four quadrants of the test sample **[was]** **[~~was not~~]** at least 0.50 and the individual static coefficients of friction **[was]** **[~~was not~~]** at least 0.45.

SLIP RESISTANCE CHARACTERISTICS: (WCM) (CONT'D)

Material: Model E14-075

(Belt Sanded)

Sample Orientation	Coefficient of Friction
First Quadrant	0.55
Adjacent Quadrant	0.53
180 degrees from First Quadrant	0.52
180 degrees from Adjacent Quadrant	0.55
Average	**0.53**

[X] The average static coefficient of friction of the four quadrants of the test sample **[was]** **[~~was not~~]** at least 0.50 and the individual static coefficients of friction **[was]** **[~~was not~~]** at least 0.45.

Note to Lab:
If the minimum and maximum run values vary by greater than 0.06, please re-conduct the test. If the second set minimum and maximum values vary greater than 0.06, please contact the engineer.

Slip Resistance Test Conditions

AMBIENT TEMPERATURE	**22.5°C**	Relative Humidity	**49.1%**

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au.ind.admin@sgs.com
ABN: 44 000 964 278
ph: +61 1300 781 744
fx:

TEST CERTIFICATE

SGS Australia Pty Ltd
Perth Laboratory
111 Mulgul Road
Malaga WA 6090
Australia

Client:	Ecoglo Pte Ltd	Client Job No:	
Project:	Submitted Samples	Order No:	
Location:		Tested Date:	7/09/2021
SGS Job Number:	21-01-1318	Sample No:	21-MT-6389
Lab:	Perth Laboratory	Sample ID:	E14-075

Slip Resistance Classification of New Pedestrain Surface Materials

AS4586 App A - Wet Pendulum Method

Tile Identification:	E14-075
Cleaning Performed:	None
Type of Test:	Specimen Unfixed
Rubber Slider	96
Tested By:	MLT

Mean BPN	
Test No.: 1	68
Test No.: 2	67
Test No.: 3	68
Test No.: 4	68
Test No.: 5	68

MEAN BRITISH PENDULUM NUMBER:	68
CLASSIFICATION:	P5

Temperature At Test:	23 ºC

Note: Sample supplied by client - tested as received.

This test report covers the following Product Range:

E14 Photoluminescent & Non-Slip Strip, 51.0mm width with 51.0mm wide of Non-Slip and 12.6mm wide of PL.

E14-035, E14-055, E14-065, E14-075, and E14-085

This Certificate replaces the previously issued Certificate No.:21-MT-6389-B400/1

Authorised Signatory: (Michael TIMLIN) Date: 10/09/2021

Appendix 5

Ecoglo International Limited

Safety Data Sheets

Ecoglo International Safety Data Sheet

Jan 2026

1. Identification

Product Name

Ecoglo Step Nosings and Path Markers including:
F3-003, F4-170, F4-171, F4-151, F6-170, F6-171, F9-180, F9-170, F9-150, F9-171, F9-271, F9-P271, F9-185, F9-175, F9-155, F14-180, F14-170, F14-150, F14-183, F14-173, F14-185, F14-175, F14-155, F14-1811, F14-1711, F14-2711, F15-179, F15-289, F15-P289, F15-180, F15-170, F15-150, F15-183, F15-173, F15-185, F15-175, F15-155, F15-1711, F15-2711, G7-001, G7-100, T5-101, T6-101, T2-103, T2-1011

Manufacturer Details

Company: Ecoglo International Ltd
Address: 77 Kingsley St, Christchurch 8440, New Zealand
Phone No: +64 3 348 3781

2. Hazard Identification

Not classified as hazardous or dangerous as per GHS.

3. Composition/information on ingredients

Component	CAS No.	Proportion
Aluminium Alloy (6063)	-	70-98%
Strontium Aluminate based photoluminescent pigment	-	0-15%
Cross-linked thermoset polyester based resins	-	2-20%
Silicon Carbide and/or Aluminium Oxide grits	-	0-5%
Other components	-	< 3.4%

4. First-aid measures

No special measures required.

5. Fire-fighting measures

No special measures required.

6. Accidental release measures

Not applicable.

7. Handling and storage

Cut edges may be sharp. No special storage requirements.

8. Exposure controls and personal protection

Wear gloves when handling.

9. Physical and chemical properties

Appearance:	Solid Strip material
Odour:	N/A
Melting point:	N/A
Specific gravity:	2.2-2.7 g/cc
Volatile:	N/A
Vapour pressure:	N/A
Vapour density:	N/A
Solubility in water:	Insoluble
Flammability:	Not easily combustible. Passes Bombardier SMP 800-C Toxic gas generation test
Explosivity:	Not explosive

10. Stability and reactivity

Hazardous reactions:	None known
Radioactivity:	Not Radioactive

11. Toxicological information

No toxicological properties.

12. Ecological information

No ecological hazards.

13. Disposal considerations

Offcuts can be sent for aluminium recycling.

14. Transport information

Not restricted.

15. Regulatory information

None applicable to product.

16. Any other relevant information

None.

Ecoglo International Safety Data Sheet

July 2025

1. Identification

Product Name

Ecoglo Step Edge Contrast Strips and Sheet:
E2-081, E2-071, E2-061, E2-051, E3-081, E3-071, E3-061, E3-051, E3-075, E3-065, E3-055, E4-071, E4-073, E4-053, E5-083, E5-073, E8-071, E10-071, ET14-089, ET14-079, E14-089, E14-079, ET14-085, ET14-075, E14-085, E14-075, E14-055, E15-073, E15-0711, E22-085, E22-075, E22-055, SPR

Manufacturer Details

Company: Ecoglo International Ltd
Address: 77 Kingsley St, Christchurch 8440, New Zealand Phone No: +64 3 348 3781

2. Hazard Identification

Not classified as hazardous or dangerous as per GHS.

3. Composition/information on ingredients

Component	CAS No.	Proportion
Aluminium Alloy (6063)	-	50-80%
Strontium Aluminate based photoluminescent pigment	-	0-5%
Cross-linked thermoset polyester based resins	-	10-30%
Silicon Carbide and/or Aluminium Oxide grits	-	5-30%
Other components	-	< 0.5%

4. First-aid measures

No special measures required.

5. Fire-fighting measures

No special measures required.

6. Accidental release measures

Not applicable.

7. Handling and storage

Cut edges may be sharp. No special storage requirements.

8. Exposure controls and personal protection

Wear gloves when handling.

9. Physical and chemical properties

Appearance:	Solid Strip material or rigid sheet
Odour:	N/A
Melting point:	N/A
Specific gravity:	2.2-2.7 g/cc
Volatile:	N/A
Vapour pressure:	N/A
Vapour density:	N/A
Solubility in water:	Insoluble
Flammability:	Not easily combustible. Passes Bombardier SMP 800-C Toxic gas generation test
Explosivity:	Not explosive

10. Stability and reactivity

Hazardous reactions:	None known
Radioactivity:	Not Radioactive

11. Toxicological information

No toxicological properties.

12. Ecological information

No ecological hazards.

13. Disposal considerations

Offcuts can be sent for aluminium recycling.

14. Transport information

Not restricted.

15. Regulatory information

None applicable to product.

16. Any other relevant information

None.

Ecoglo International Safety Data Sheet

July 2025

1. Identification

Product Name

Ecoglo Guidance Strips, Handrail Markers and L Markers including:
G3-001, G6-003, G6-011, H3-001, H5-001, MS-26, MS-65, T2-103, S5-LM22080

Manufacturer Details

Company: Ecoglo International Ltd
Address: 77 Kingsley St, Christchurch 8440, New Zealand
Phone No: +64 3 348 3781

2. Hazard Identification

Not classified as hazardous or dangerous as per GHS.

3. Composition/information on ingredients

Component	CAS No.	Proportion
Aluminium Alloy (6063)	-	60-80%
Strontium Aluminate based photoluminescent pigment	-	2-15%
Cross-linked thermoset polyester based resins	-	10-30%
Other components	-	<0.2%

4. First-aid measures

No special measures required.

5. Fire-fighting measures

No special measures required.

6. Accidental release measures

Not applicable

7. Handling and storage

Cut edges may be sharp. No special storage requirements.

8. Exposure controls and personal protection

Wear gloves when handling.

9. Physical and chemical properties

Appearance:	Solid Strip material
Odour:	N/A
Melting point:	N/A
Specific gravity:	2.2-2.7 g/cc
Volatile:	N/A
Vapour pressure:	N/A
Vapour density	N/A
Solubility in water:	Insoluble
Flammability:	Not easily combustible. Passes Bombardier SMP 800-C Toxic gas generation test
Explosivity:	Not explosive

10. Stability and reactivity

Hazardous reactions:	None known
Radioactivity:	Not Radioactive

11. Toxicological information

No toxicological properties.

12. Ecological information

No ecological hazards.

13. Disposal considerations

Offcuts can be sent for aluminium recycling

14. Transport information

Not restricted.

15. Regulatory information

None applicable to product.

16. Any other relevant information

None.

Ecoglo International Safety Data Sheet

July 2025

1. Identification

Product Name

Ecoglo S5 Flat Panel Signs including: S5-RML1010, S5-RMR1010, S5-ARS1010, S5-ARD1010, S5-SI4631, S5-DHM1010, S5-EX230120, S5-EX290155, S5-EXR230120, S5-EXR290155, S5-EXL230120, S5-EXL290155, S5-EXRL310166, S5-RMLFE-228102, S5-RMRFE-228102, S5-SU228102, S5-SD228102, S5-FEXT228102, S5-EVAC210297, S5-EVAC216280, S5-EVAC216330, S5-EVAC457610, S5-EVAC610915, S5-FEXT2010, S5-FH2010, S5-FA2010, S5-BG2010, S5-FH1010, S5-FA1010, S5-BG1010, S5-FEGL2010, S5-RM2010, S5-RMUA2010, S5-RMDA2010, S5-RML2010, S5-RMR2010, S5-RMUL2010, S5-RMDL2010, S5-RMUR2010, S5-RMDR2010

Manufacturer Details

Company: Ecoglo International Ltd
Address: 77 Kingsley St, Christchurch 8440, New Zealand
Phone No: +64 3 348 3781

2. Hazard Identification

Not classified as hazardous or dangerous as per GHS.

3. Composition/information on ingredients

Component	CAS No.	Proportion
Aluminium Alloy (5005)	-	70-85%
Strontium Aluminate based photoluminescent pigment	-	5-15%
Cross-linked thermoset polyester based resins	-	10-30%
Other components	-	< 1%

4. First-aid measures

No special measures required.

5. Fire-fighting measures

No special measures required.

6. Accidental release measures

Not applicable.

7. Handling and storage

Cut edges may be sharp. No special storage requirements.

8. Exposure controls and personal protection

Wear gloves when handling.

9. Physical and chemical properties

Appearance:	Solid sheet material
Odour:	N/A
Melting point:	N/A
Specific gravity:	2.2-2.7 g/cc
Volatile:	N/A
Vapour pressure:	N/A
Vapour density:	N/A
Solubility in water:	Insoluble
Flammability:	Not easily combustible. Passes Bombardier SMP 800-C Toxic gas generation test
Explosivity:	Not explosive

10. Stability and reactivity

Hazardous reactions:	None known
Radioactivity:	Not Radioactive

11. Toxicological information

No toxicological properties.

12. Ecological information

No ecological hazards.

13. Disposal considerations

Offcuts can be sent for aluminium recycling.

14. Transport information

Not restricted.

15. Regulatory information

None applicable to product.

16. Any other relevant information

None.

Appendix 6

Ecoglo International Limited

Quality Assurance Document

Ecoglo International Ltd

QUALITY POLICY

E.I.L is a world leader in the manufacture of photoluminescent signage and path marking. We pride ourselves on our strong focus on compliance and durability. Our policy is to achieve sustainable growth by offering quality products and service. All of our staff are committed to continual quality improvement. The company has earned respect and credibility, at an international level, as a result of our contributions to building code development around photoluminescent system design.

E.I.L maintains an ISO 9001:2015 compliant Business Management System. Management will ensure that all staff are committed to the principles of this system and its continual development.

Our key objectives are:

- To ensure that all products meet contractual and relevant regulatory obligations, both national and international.
- To offer a cost effective and sustainable alternative to traditional electrical lighting that all areas of industry can adopt in a safe and practical manner.
- To offer the most durable photoluminescent products on the market and back them with the best warranty and after-sales support.
- To identify and implement new processes to reduce our product cost without increasing our environmental impact.

Our strategy to achieve these goals is:

- Maintain a high level of staff input on quality control.
- Focus on keeping our staff fully aware of our expected quality output.
- Explore all opportunities to improve our products and processes.
- Effectively recognise the limitations of our product range and work with our clients and competitors to deliver the best result for our clients.
- Be active and engaged in the wider fire safety industry.
- Review any complaints or criticism and use them to construct educational material that assists all levels of industry, both national and international.

Ecoglo International Ltd.

77 Kingsley Street
Christchurch, New Zealand
www.ecoglo.com

Signed: _____

Name: Sam Haughey

Date: 30/06/2023

Appendix 7

Ecoglo International Limited

Product Warranty

Ecoglo International Limited

Warranty for HTC Signs and Lineal Wayfinding & Anti-slip Products

1. We warrant Signs and Lineal Wayfinding & Anti-slip Products manufactured using our High Temperature Curing (HTC) process against defects in materials or workmanship. The term of this warranty is **five** years from the date of delivery.

Extended warranties are available for specialised products and solutions.

2. We warrant the photoluminescent performance of Signs and Products manufactured using our High Temperature Curing (HTC) process, for a period of:

thirty years from the date of installation for standard Signs and Products which are positioned **indoors;** and

fifteen years from the date of installation for **outdoor** Signs (specially coated for **outdoor** conditions) and Products which are positioned **outdoors**.

3. This warranty assumes correct installation and normal conditions of use and maintenance but does not cover normal wear and tear. This warranty does not cover deterioration due to abuse, mistreatment, natural disasters (e.g. fire, flood), exposure to harmful chemicals or environments or any other use or exposure not recommended in our product literature. In particular, this warranty is void in the following circumstances:

3.1 The Signs and/or Products have been misused, neglected, damaged, abused or involved in an accident.

3.2 The Signs and/or Products have been improperly installed, operated, repaired or maintained.

3.3 The Signs and/or Products have been modified.

3.4 The Signs and/or Products have been used outside their stated specifications, capacity and operating parameters.

4. If you have a claim that, in our reasonable judgement, satisfies the terms of this warranty, we shall replace the defective Sign or Product (material only).

5. This is an express warranty. It is your sole and exclusive remedy. We disclaim any other express or implied warranties, including warranties of merchantability or fitness for purpose, to the maximum extent permitted by law. Under no circumstances shall we accept liability for any injury to persons, damage to property, loss of profits, loss of operations or other direct, indirect, special, incidental, or consequential losses, costs and damages whether incurred by you, your guests, licensees, invitees or other third parties. Our liability under any circumstance, whether in contract, tort or otherwise, shall not, in the aggregate, exceed the price that you paid for the Sign and/or Product.

6. Some countries do not allow certain disclaimers, limitations or exclusions in warranties. Therefore, the above disclaimers, limitations and exclusions may not apply to you. This warranty gives you specific legal rights. You may have other rights or remedies pursuant to the laws of your country. Nothing in this limited warranty should be construed as limiting or restricting any other right or remedy available to you, except as allowed by the law in your country.

POSTAL ADDRESS
PO BOX 7698
CHRISTCHURCH
8240 NEW ZEALAND

SALES OFFICE LOCATION
UNIT 3, 160 FERRY ROAD,
WALTHAM, CHRISTCHURCH
8011, NEW ZEALAND

FACTORY LOCATION
77 KINGSLEY STREET
SYDENHEM, CHRISTCHURCH 8023
NEW ZEALAND

CONTACT US
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ECOGLO INTERNATIONAL LTD

Appendix 8

Ecoglo International Limited

Maintenance & Cleaning Instructions

ecoglo®

VISIBLY BETTER

V24.1

Instructions For

Maintenance and Cleaning

Exit Signs and Escape Path Markings

Ecoglo International Limited
Email: info@ecoglo.com
www.ecoglo.com

Maintenance and Cleaning Instructions For Exit Signs and Escape Path Markings

Overview

- Regular maintenance and cleaning to remove any obstructions or built up dirt and deposits will ensure the Ecoglo products continue performing to expectation.
- The photoluminescence will continue performing even after UV exposure or exposure to moisture.

Floor Mounted Products

- Check nothing is covering up the product.
- Visually inspect for any sign of damage.
- Vacuuming or brushing with a stiff bristle head brush (dry or wet) is often enough to keep the strips clean.
- The glowing strip can also be wiped clean with a (dry or wet) sponge or cloth.
- High-pressure water (but not steam cleaning) can also be used.
- Observation will determine if cleaning is required however a regular clean every 4 to 6 weeks or after particularly heavy use should ensure correct performance.

Wall Mounted Products

- Check nothing is covering up the sign.
- Visually inspect for any sign of damage.
- Dusting with a soft cloth or brush is often enough to keep the signs clean.
- The glowing material can also be wiped clean with a (dry or wet) sponge or cloth.
- Observation will determine if cleaning is required.

Note

- Do not use highly alkaline or acidic cleaning agents. The pH of the cleaning agents should be between pH 5 and pH 12.
- If cleaning agents are applied at more than pH 10, the Ecoglo material should be rinsed with pH neutral (pH 6 to pH 8) solution afterwards.

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