

PRODUCT DATA SHEET 22 SERIES

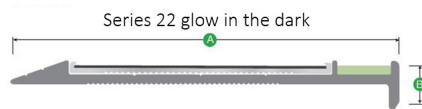
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Stair Nosing 22 series-Photo luminescent Glow in the Dark

This stair nosing fully complies with the requirements of AS 1428.1-2021 revised Design for Access and Mobility. This architectural grade alloy offers good surface finish and superior corrosion resistance.

SPECIFICATIONS

PRODUCT	22 series glow in the dark
BASE MATERIAL	Stair nosing is extruded from 6063/T5 Alloy
FINISH	Clear Anodised – 25Um
TREAD WIDTH	80 mm
FRONT DEPTH	10 mm
GLOW STRIP WIDTH	Glow strip of 12 mm
INSERT TYPE	Carborundum– Rubber and Ripple Trim
PRODUCT WARRANTY	2 Years
INSERT SLIP RATING	P4 aluminum ripple trim and P5 Classification (Highest available) carborundum and epoxy
CODE COMPLIANCE	AS1428.1-2009 Check floor finish colour for luminance contrast requirements
FIXING METHOD	Screws or adhesive fix
APPLICATION	Surface mounted on hard floor finishes – Concrete, Timber etc.



A	80mm
B	10mm

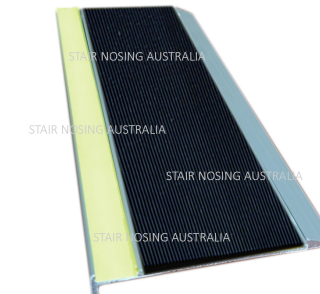
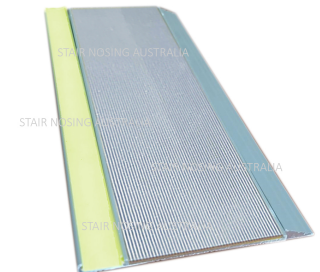
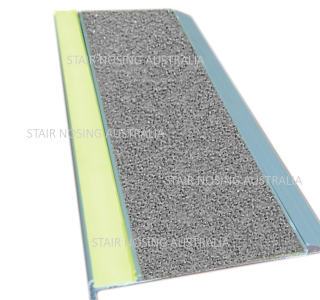
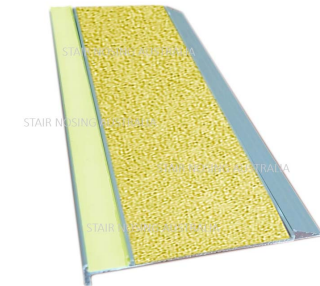
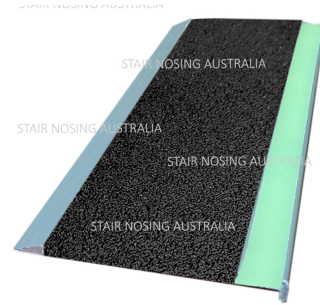
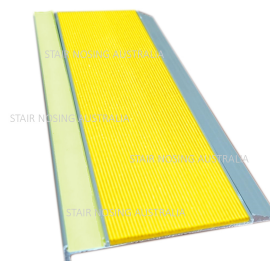
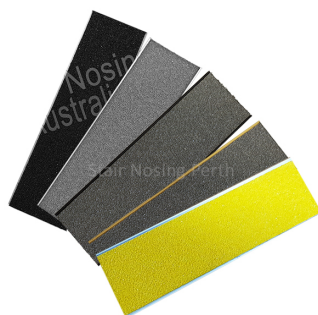
* Insert measures 54mm wide

Photo-Luminescent Data Based on DIN 67510-1, 1000LX, D65 light source, excitation 5 min.

- ⌚ 10min >1000mcd/sqm
 - ⌚ 60min >150mcd/sqm
 - Temperature resistance:
 - ⌚ -4 +/- 1 deg. C no peeling and cracks
 - ⌚ 50+/- 1 deg. C no peeling and cracks
- he luminous strip is made of acrylic material

716 Anodised ripple trim

Carborundum / Epoxy



Fire resistance
SC-R™ materials were fire tested by AWTA Product Testing and the results were “ Best Achievable ” for critical heat flux and smoke value in Accordance with Australian Standard AS/ISO 9239.1 – 2003; reaction to fire tests for floorings, determination of the burning behaviour using a radiant heat source. Test report is available on request.

Glow in the Dark- Photoluminescent Stair Nosing and Standards.

“Glow-in-the-dark” materials, also known as photoluminescent materials, contain special inorganic pigments that shine when the lights go out. First, when these pigments absorb light from sources like lamps or sunlight, they store the energy by raising electrons to a higher level. Then, in the dark, they release that energy as visible light when the electrons return to their original state. Thus, these materials create a beautiful glow that illuminates their surroundings.

Imagine glow-in-the-dark pigment as a rechargeable battery filled with potential. First, it absorbs light from an external source to "charge" itself. When the light source fades, the pigment begins to glow, its brilliance peaking immediately after exposure. In addition, stair nosings absorb surrounding light and then re-emit it in dimly lit areas. This enhances visibility and adds an enchanting quality, guiding footsteps safely through the darkness.

Importance of DIN 67510-1 Compliance:

DIN 67510-1 is a German standard that sets the performance requirements for glow-in-the-dark materials. Specifically, it focuses on how bright these materials are and how long they continue to glow. As a result, the standard ensures that they effectively function in dark or low-light situations.

DIN 67510-1 establishes standards for photoluminescent materials used in various environments to ensure visibility and reliability in emergencies. These standards help maintain safety during critical situations. Moreover, compliance with these guidelines guarantees that the materials meet the required quality and performance expectations.

Key Features of DIN 67510-1:

1. **Luminance Performance:** Establishes the minimum requirements for the brightness and duration of the afterglow, which is critical for ensuring visibility over time.
2. **Durability:** Considers the environmental factors like moisture, temperature variations, and exposure to light, ensuring the materials can withstand harsh maritime conditions.
3. **Testing Methods:** Provides standardized testing procedures to evaluate the performance of photoluminescent materials, ensuring consistency and reliability.

D65

D65 is a standard illuminant defined by the CIE (Commission Internationale de l'Éclairage) that represents average daylight.

Specifically, it has a correlated color temperature of approximately 6500K, which mimics the color of daylight on a clear day around noon.

Furthermore, some standards, like DIN 67510, specify minimum luminance values for various time intervals, including 60 minutes. This consistency helps ensure accurate lighting measurements across different applications. DIN 67510 Part 2 specifies the following minimum luminance values:

- After 10 minutes: 15 mcd/m² (milli-candela per square meter).
- After 60 minutes: 2 mcd/m².

These standards ensure that photoluminescent materials remain visible during emergency situations and enhance safety for individuals who rely on them.

The decay of luminance over time plays a crucial role; therefore, the standard allows researchers to extrapolate results in order to determine the decay time. Specifically, this occurs when the luminance reaches a certain minimum level, such as 0.3 mcd/m².

Stair Nosing Glow in the dark Series 22

Photo-Luminescent Data Based on **DIN 67510-1, standards 1000LX, D65 light source**, [D65 has a correlated color temperature of around 6500K, which corresponds to the color of daylight on a clear day around noon.] Excitation [charge time] 5 min.

Candela: The standard unit of luminous intensity.

- After 10min >1000mcd/sqm
 - [Standard is After 10 minutes: 15 mcd/m², After 10 minutes, 15 mcd/m² translates to a minimum luminous intensity of 15 millicandelas per square meter. This is a standard requirement for photoluminescent]
- 60min >150mcd/sqm
 - After 60min >150mcd/sqm" refers to the afterglow intensity of a photoluminescent material, meaning it glows in the dark for at least 60 minutes after initial excitation (typically after being exposed to light), and the glow intensity is greater than 150 millicandela per square meter (mcd/sqm). This is a common specification for photoluminescent materials used in safety applications, such as stair nosing.
- Temperature resistance:
- -4 +/- 1 deg C. Temperature range C, no peeling and cracks
 - indicates that the stair nosing material can withstand cold temperatures without physical damage. This quality assurance measure ensures the nosing remains functional and safe even in colder environments.
- 50+/- 1 deg. C no peeling and cracks
 - refers to a temperature range requirement for photoluminescent stair nosing, specifically that the material should maintain its properties, like no peeling or cracking, within a temperature range of 50 degrees Celsius plus or minus 1 degree Celsius. This is important for ensuring the durability and effectiveness of the stair nosing, especially in environments with varying temperatures.
- The luminous strip is made of acrylic, durable, weather resistant, impact resistant and UV resistant.
- The luminous strip is made of acrylic material, Alkaline – Earth Aluminate and Silicate which are activated by Rare Earth Elements. Its features include: High luminance, long lasting time in luminance and it is weather proof. The product is Non-Toxic, Non-Radioactive and has stable chemical properties.

Lux: measures how much light is falling on a surface.

Lumens: measure the total amount of light emitted by a light source.

One lux is equal to one lumen spread over one square meter.

To convert lux to lumens, you need to know the area:

Lumens = Lux and Area (in square meters).

For example, if you have 1000 lux and the area is 10 square meters, then the total lumens is 1000 * 10 = 10,000 lumens

A photometer is the primary tool used to measure the intensity of light emitted by glow-in-the-dark materials.

