

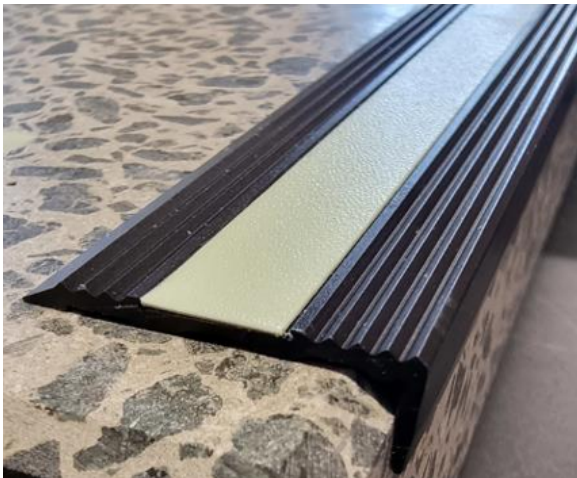
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TECHNICAL DATA SHEET

GW0070 & GW0071 Aluminum Retrofit Stair Nosing



1. PRODUCT DESCRIPTION AND APPLICATIONS

- **Intended use:** A retrofit stair nosing designed for the edges of stone, concrete, and other stair treads to protect them and improve safety.
- **Accessibility and warning function:** The product's transparent, embossed PVC film (ORAGUARD® 250AS) has a very high frictional resistance, acting as a highly effective anti-slip surface. The photoluminescent property improves the visibility and safety of the steps in emergency situations and in the dark.
- **Functionality:** The product combines structural protection (aluminum frame), glow-in-the-dark photoluminescent pigment, and certified slip resistance into a single, ready-to-install package.

2. DIMENSIONS AND STRUCTURE

- **Dimensions (Width x Height x Length):** 30 x 10 x 2200 mm.
- **Installed profile height:** The material thickness of the nosing is 2 mm, meaning it rises only slightly above the installation surface.
- **Component thicknesses:** The thickness of the PVC anti-slip film without adhesive and release paper is 120 microns (0.12 mm). The thickness of the double-sided mounting tape (Nitto D5331) is 0.070 mm.

3. MATERIAL PROFILE AND VISUAL PROPERTIES

- **Base material:** The frame is made of aluminum alloy EN AW-6060 T6 [Al MgSi]. The anti-slip section consists of an embossed PVC film attached with a modified acrylic adhesive (Nitto polyester tape).
- **Surface finish:** The film features a special transparent, embossed surface structure that withstands wear and improves friction.
- **Product color in daylight:** Aluminum frame, where the base color of the warning stripe varies by model (black or gray).
- **Photoluminescent color in the dark:** Green.

4. PHOTOLUMINESCENT PROPERTIES (DIN 67 510 Part 1)

The luminance of the photoluminescent pigment meets the standard requirements. The sample pre-illumination used in the measurement was $E = 999.4 \text{ lx}$.

- **After 2 minutes:** 1122 mcd/m^2
- **After 10 minutes:** 226.2 mcd/m^2

5. MECHANICAL PROPERTIES AND CERTIFICATES

A. Aluminum Frame (EN AW-6060 T6)

- **Yield strength (Rp0.2):** $> 150 \text{ MPa}$
- **Tensile strength (Rm):** $> 190 \text{ MPa}$
- **Elongation at break (A50mm):** $> 8.0 \%$

B. PVC Film (ORAGUARD® 250AS)

- **Tensile strength (DIN EN ISO 527):** Longitudinal and transverse $> 19 \text{ MPa}$
- **Elongation at break:** Longitudinal $> 130 \%$, transverse $> 150 \%$
- **Slip resistance class:** R10 (DIN 51130)
- **Coefficient of sliding friction (Sports floors):** Meets DIN V 18032-2
- **Temperature resistance:** $-40 \text{ °C} \dots +80 \text{ °C}$ (when adhered to aluminum)

C. Double-Sided Mounting Tape (Nitto D5331)

- **Adhesion strength to PP, PVC, and ABS plastics:** 1300 cN/20mm (EN 1939)
- **Adhesion strength to PMMA plastic:** 1400 cN/20mm (EN 1939)
- **Adhesion strength to PC plastic:** 1500 cN/20mm (EN 1939)
- **Adhesion strength to PET plastic:** 400 cN/20mm (EN 1939)
- **Heat resistance (SAFT test):** 185 °C

6. STRUCTURAL PROVISIONS AND DESIGN REQUIREMENTS

- **Installation space on the floor:** The product is surface-mounted (retrofit model), meaning it does not require a separate embedding groove in the floor. It can be installed directly on top of stone or concrete stairs.
- **Recommended fastening:** Würth polymer adhesive and sealant is recommended for installation. Alternatively, the nosing can also be mechanically fastened to the base material with screws.
- **Installation conditions:** The installation temperature must be above +8 °C.
- **Service life and outdoor installation:** The product can only be used outdoors without the photoluminescent PVC tape section, as the PVC tape does not withstand outdoor conditions. Indoors, when installed correctly, the service life of the PVC film without foot traffic is 5 years. Under heavy foot traffic, the service life of the PVC film is less than 6 months depending on the degree of wear. Therefore, installation and protective measures must be timed according to wear and the construction phase.

7. CLEANING, MAINTENANCE AND CHEMICAL RESISTANCE

- **Permitted cleaning agents and resistance:** The PVC anti-slip tape must only be washed with clean water or very mild, general cleaning agents.
- **Prohibited substances (STRICTLY PROHIBITED):** Under no circumstances should alcohol or solvents be used for cleaning. The PVC tape is adhesive-based, and its adhesive dissolves immediately upon contact with alcohol or solvents, causing the tape to detach from its base.
- **Note:** The limited service life of the PVC film under heavy foot traffic requires extreme caution regarding severe mechanical abrasion (e.g., stiff brushes or pressure washing) to ensure the slip resistance properties are maintained.
- **Lifespan of the anti-slip film (Maintenance info):** Under heavy foot traffic, the service life of the plastic PVC anti-slip film is less than 6 months, depending on the degree of wear. This must be taken into account in the property's maintenance plan, and the wearing film must be replaced when necessary to guarantee safety.

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