



SD Aluminium SkyLine Balustrade System

Designated Building Product - Class 2
BPIR Declaration - V1. 08.2025

Declaration

SD Aluminium Limited has prepared this declaration to meet the requirements of Schedule 1(d) of the Building (Building Product Information Requirements) Regulations 2022.

This declaration applies to the *SkyLine Balustrade System* as a designated building product, Class 2.

It confirms that the information provided is based on our technical documentation, manufacturing processes, and supporting evidence, and is, to the best of our knowledge, accurate and complete at the time of publication.

Product / System

Name - **SD Aluminium SkyLine Balustrade System**
Identifier - GM-SDBL-06
Line -

Description

The SkyLine System is a post-free aluminium balustrade that uses robust flat bars at the base to support vertical infills between the base plate and the handrail. This design provides a sleek, uninterrupted appearance while delivering exceptional strength and stability. Ideal for decks, balconies, and other level outdoor applications, the SkyLine System offers a contemporary solution that meets New Zealand Building Code safety requirements.





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Scope Of Use

The SkyLine System is designed as a post-free aluminium balustrade solution intended for top-fixed installation on stable, level surfaces such as decks and balconies. It is suitable for use in residential and light commercial environments classified under Occupancy A, A Other, and C3 Residential, in accordance with the New Zealand Building Code.

This system accommodates standard panel sizes ranging from 1.0 to 1.2 meters in height and 1.0 to 1.5 meters in width, facilitating ease of installation. The post-free design enables longer uninterrupted panel spans, offering flexibility in design and layout.

Custom panel sizes are available to meet specific project requirements.

Installation surfaces must be secure and flat to maintain the structural integrity and safety performance of the system. Further installation information is available upon request.

Conditions Of Use

- The SD Aluminium Balustrade System must be fabricated and installed exclusively by authorised fabricators approved by SD Aluminium.
- Only extrusions, components, and hardware supplied or expressly specified by SD Aluminium are permitted for use within the SD Aluminium Balustrade System.
- Unless otherwise stated, all aluminium extrusions, components, and hardware conform to 6063 T5 alloy specifications.
- All stainless steel components, hardware, and fixings used must be of 316 stainless steel to ensure durability and corrosion resistance.
- Installation of the SD Aluminium Balustrade System shall be carried out in strict accordance with the recommended installation specifications and technical standards provided by SD Aluminium.
- Any modifications or deviations from the recommended specifications must be accompanied by site-specific PS1 documentation, including relevant engineering calculations and detailed drawings outlining the non-standard requirements.
- Upon successful completion of installation, the approved fabricator must issue a PS3 (Construction Compliance Certificate) to the property owner.
- All materials shall be stored, handled, and installed in a manner that prevents damage, contamination, or deterioration.
- It is the responsibility of the installer to verify that all site conditions comply with the requirements set forth in the recommended installation guidance prior to commencement of work.
- Regular maintenance and inspection schedules must be followed to ensure ongoing performance and compliance with safety standards.

Relevant Building Code Clauses

B1	Structure	<i>B1.3.1, B1.3.2, B1.3.3(c, f, h, j, m), B1.3.4</i>
B2	Durability	<i>B2.3.1(a), B2.3.2(a, b)</i>
D1	Access Route	<i>D1.3.3(j, k)</i>
F2	Hazardous Building Material	<i>F2.3.1, F2.3.3</i>
F4	Safety From Falling	<i>F4.3.1</i>

Contributions To Compliance

The SkyLine balustrade system has been designed and verified to meet the structural and safety performance requirements of the New Zealand Building Code. Engineering is carried out in accordance with AS/NZS 1170:2002 for occupancy categories A, A Other and C3, and NZS 3604 wind zones from Low to Extra High. The system complies with B1 (Structure), B2 (Durability), F2 (Hazardous building materials) and F4 (Safety from falling).

A Producer Statement (PS1) is provided for this system to confirm compliance, applying Verification Methods B1/VM1, B2/AS1 and F4/AS1 as relevant.

Installation Requirements

The SkyLine System must be installed by a competent person with experience in aluminium balustrade systems, following the manufacturer's installation guidelines. The system is designed for top-fixed applications only, onto stable, level substrates such as timber decks, concrete slabs, or steel framing that are structurally capable of supporting the imposed loads.

The base plates and flat bar supports must be securely anchored using suitable corrosion-resistant fixings in accordance with AS/NZS 1170 loading requirements. Vertical infills are to be installed between the base plate and the handrail with all components aligned and tightened to ensure stability and compliance with the New Zealand Building Code.

Prior to installation, the substrate must be inspected for structural integrity, flatness, and suitability for fixings. Any deviation from standard configurations (including custom panel sizes) should be approved by the supplier to ensure compliance with design loadings.

Limitations & Design Requirements

- The SkyLine System is intended for use on level surfaces only and is not suitable for raking or stair applications without specific engineering approval. Installation must not proceed where substrates are uneven, unstable, or incapable of resisting the applied loads.
- The supporting structure must be designed to accommodate the loads transferred by the balustrade, including wind loads appropriate to the site's wind zone classification, up to Extra High as verified in the engineering documentation.
- For projects in coastal or highly corrosive environments (Zone D or within 500 m of breaking surf), additional protective measures such as marine-grade powder coating or stainless-steel fixings are recommended. Penetrations through waterproof membranes must be sealed in accordance with E2/AS1 or equivalent detailing to prevent water ingress.
- Custom sizes or modifications outside the standard configurations may require site-specific engineering review and an updated Producer Statement (PS1).

Maintenance Requirements

- To maintain the performance, safety, and visual appeal of the aluminium balustrade system, regular cleaning and inspection are essential. These steps not only help preserve the product's appearance but also ensure it continues to comply with the New Zealand Building Code over its service life.
- All exposed aluminium surfaces should be washed with a mild detergent and rinsed thoroughly with fresh water at least every six months in typical urban environments. In coastal, geothermal, or industrial locations where exposure to salt, moisture, or airborne contaminants is higher, cleaning should be carried out every three months — or more frequently if visible deposits appear. Regular cleaning will reduce the risk of surface staining, corrosion, and coating degradation.
- During each cleaning cycle, carry out a full inspection of the system. Check all fixings, joints, and bracket connections for signs of loosening, corrosion, or wear. Tighten any loose fasteners and replace damaged components immediately. Pay special attention to points where dissimilar metals come into contact, as these areas are more prone to galvanic corrosion and may require protective isolation or maintenance coatings.
- Powder-coated surfaces must be cleaned using a soft sponge or cloth — avoid abrasive pads, steel wool, or strong solvents that may damage the finish. Any scratches, chips, or coating damage should be touched up promptly with a suitable colour-matched repair coating to prevent corrosion from developing underneath.
- For glass balustrade systems (such as ClearView), clean glass panels regularly using a non-abrasive glass cleaner or mild soapy water. Rinse well and dry with a soft lint-free cloth to prevent streaks or mineral deposits. Avoid directing high-pressure water jets at the panel edges or seals, as this may damage the glass.



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Company Information

Legal name of the manufacturer: SD Aluminium Ltd
Manufacture location: New Zealand
Manufacture address for service: 6 John Glenn Avenue, Rosedale, Auckland 0632
Manufacturer NZBN: 9429047563094
Manufacture website: www.sdaluminum.co.nz/



Branch Locations & Contact Details

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Building code performance clauses

Clause B1 – Structure (Performance criteria)

- **B1.3.1:** Buildings, building elements and sitework shall have a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during construction or alteration and throughout their lives.
- **B1.3.2:** Buildings, building elements and sitework shall have a low probability of causing loss of amenity through undue deformation, vibratory response, degradation, or other physical characteristics throughout their lives, or during construction or alteration when the building is in use.
- **B1.3.3:** Account shall be taken of all physical conditions likely to affect the stability of buildings, building elements and sitework, including: self-weight; imposed gravity loads arising from use; temperature; earth pressure; water and other liquids; earthquake; snow; wind; fire; impact; explosion; reversing or fluctuating effects; differential movement; vegetation; adverse effects due to insufficient separation from other buildings; influence of equipment, services, non-structural elements and contents; time-dependent effects including creep and shrinkage.
- **B1.3.4:** Due allowance shall be made for: the consequences of failure; the intended use of the building; effects of uncertainties resulting from construction activities or the sequence in which construction activities occur; variation in the properties of materials and the characteristics of the site; accuracy limitations inherent in the methods used to predict the stability of buildings.

Clause B2 – Durability

- **B2.3.1:** Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the specified intended life of the building, if stated, or:
 - a. the life of the building, being not less than 50 years, if those building elements provide structural stability; are difficult to access or replace; or failure would go undetected during normal use and maintenance;
 - b. 15 years if moderately difficult to access or replace, and failure would be easily detected during normal maintenance;
 - c. 5 years if easy to access and replace, and failure would be easily detected during normal use.
- **B2.3.2:** Individual building elements which are components of a building system and are difficult to access or replace must either:
 - a. all have the same durability; or
 - b. be installed in a manner that permits the replacement of building elements of lesser durability without removing building elements that have greater durability and are not specifically designed for removal and replacement.

Clause D1 – Access Routes (Relevant Parts for Handrails)

- **D1.3.3 (j):** Handrails that are smooth, reachable, and graspable to assist with movement along a stair or barrier.
- **D1.3.3 (k):** Handrails must be of adequate strength and rigidity as required by Clause B1 (Structure).

Clause F2 – Hazardous Building Materials

- **F2.3.1:** The quantities of gas, liquid, radiation or solid particles emitted by materials used in the construction of buildings, shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space.
- **F2.3.2:** Transparent panels capable of being mistaken for an unimpeded path of travel shall be marked to make them visible. Performance F2.3.2 does not apply to housing.
- **F2.3.3:** Glass or other brittle materials with which people are likely to come into contact shall either: (a) if broken on impact, break in a way which is unlikely to cause injury; or (b) resist a reasonably foreseeable impact without breaking; or (c) be protected from impact.

Clause F4 – Safety From Falling

- **F4.3.1:** Where people could fall 1 metre or more from an opening in the external envelope or floor of a building, or from a sudden change of level within or associated with a building, a barrier shall be provided.