

PRODUCT SOLUTIONS

DURALLOY™

SOLID COLOUR RANGE



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The Duralloy solid colour range is a collection of popular solid colours including COLORBOND® colours, delivered with warranty grade* advanced durable polyester thermosetting powder.

- ✓ **Durable finish**
- ✓ **Good colour retention**
- ✓ **Popular solid colours including COLORBOND® steel colours**
- ✓ **CustomColour™ service available**



Suitable substrates

The Duralloy solid colour range is ideal for warranty grade applications over:

- Architectural aluminium including perforated and expanded aluminium.

The Duralloy solid colour range can also be used on the following metals but these are not warranted:

- Steel (mild), bright/semi bright steel, black steel and blue steel.
- Galvanised steel, stainless steel and ZINCALUME®.

Project types

The Duralloy solid colour range is suitable for use on architectural aluminium and steel on exterior residential buildings less than 4 levels and non-habitable projects that are greater than 100m from the high tide. The Duralloy solid colour range is also suitable for interior applications across many project types.

	 NON-HABITABLE	 RESIDENTIAL <4 LEVELS	 RESIDENTIAL >3 LEVELS	 LIGHT COMMERCIAL <4 LEVELS	 COMMERCIAL >3 LEVELS	 PRESTIGIOUS COMMERCIAL	 MONUMENTAL
INTERIOR	•	•	•	•	•	•	•
EXTERIOR	•	•					

- Non-habitable projects are those that are not dwelling types. Examples can be furniture, bus shelters, signage etc.
- Residential properties < 4 levels are typically easy to maintain, given their height and access.
- Light commercial projects < 4 levels are sheltered from neighbouring buildings, but require greater durability due to higher usage and wear.
- High-rise residential and commercial projects are less sheltered from neighbouring buildings, raising their exposure and reducing their ease of maintenance.
- Prestigious commercial projects attract attention and require high quality finishes to uphold the longevity and design requirements.
- Monumental projects attract the most attention and have the highest standards required to uphold the reputation and protection expected from landmark sites.

* Only DGL Accredited Powder Coaters are able to issue our DGL Alumi Shield™ warranties after demonstrating their capability to meet stringent quality conditions and international standards. Visit dglpowders.com/warranties for more information.

Warranty benefits

The Duralloy solid colour range is supported by DGL Alumi Shield™ warranties when applied by a DGL Accredited Powder Coater to the warranty specification on recommended project types and conditions.

Alumi Shield™ Warranty

The Alumi Shield™ warranty is made up of two key components, a colour warranty (for fade and chalking) and a durability warranty (film integrity)



Terms and conditions apply

- The Alumi Shield™ warranties are your assurance that Duralloy will not:
 - › **Fade** – Fade testing will not give a delta E (Hunter) laboratory reading greater than five units from the original colour.
 - › **Chalk** – The rate of chalking will not exceed a rating of 2 for whites and pastels and a rating of 3 for deep colours as assessed in accordance with AS1580.481.1.11 test method.
- The Alumi Shield™ durability warranty is your assurance the powder coating won't peel, crack or flake during the warranty period, from the date the product is applied to the metal.
- Warranties are only valid when applied by a DGL Accredited Powder Coater to the warranty specification on recommended project types and conditions.
- The Alumi Shield™ warranty is only valid if maintained within the recommended Care and Maintenance Guidelines.
- The DGL Alumi Shield™ warranty is a warranty in relation to the relevant DGL products to which they relate. DGL Alumi Shield™ warranties do not cover the services required for application.

Important design considerations

DGL Alumi Shield™ warranties are available on a wide range of fabricated architectural aluminium items, but those items must be designed, prepared (pre-treated), coated, fabricated and installed to standard ensuring that the item is fully protected.

It is essential that any item that is coated must be designed and fabricated to ensure:

- **It meets key standards** – Refer to AS 2312.1 and the relevant building code.
- **Protection is a key consideration at the early stages of design** – The design should allow the item to be prepared for coating correctly and that the minimum thickness of the specified coating can be achieved.
- **Uncoated areas are appropriately sealed to last the duration of the warranty** – It is essential that the choice of other materials that contribute to protection of uncoated areas such as sealants, should be made to ensure that a Alumi Shield™ warranty is not void due to the sealant's failure. When aluminium items are exposed to interior and exterior environments, it is essential that should only one side of a section of metal be coated, it is appropriately sealed or if a section is cut exposing the raw metal, it must be sealed with an appropriate small joint sealant to protect the non-coated area from the environment, i.e. not exposed to moisture, air and excessive heat. Should the seal fail, and a claim is made for an Alumi Shield™ warranty project the warranty for the area affected will be void as the integrity of the seal is not the responsibility of DGL.
- **The following design elements are avoided** – Narrow crevices, poor air circulation, depressions, sharp edges and corners, large flat ledges (not window ledges), intermittent welding, undrained flat surfaces, unsealed hollow sections, flat surfaces in loose contact where moisture may be drawn in between them by capillary action or where water and foreign matter will lodge, as these areas may result in premature failure of the coating system.
- **Failure caused by post formed or post fabrication processes are avoided** – Please be aware warranties shall not apply to areas where a failure is caused from post formed or post fabrication processes, such as metal perforation, welding, cutting, drilling or any other circumstances beyond the reasonable control of DGL. Many post fabrication processes can impede achievement of a continuous layer of pre-treatment and the minimum film build of powder coating. Where there is doubt please consult the relevant guideline or regulation such as the building code or window association for information on mitigating any potential damage that could be caused by post fabrication processes.

For full details on Alumi Shield™ warranties including terms and conditions visit dglpowders.com/warranties

Project suitability

Use the following tables to help identify where the Duralloy solid colour range can be applied on aluminium and steel projects. Refer to the conditions information to determine the environment that your project will be exposed to.

Project suitability – aluminium

Project, Environment and Conditions			Top Coat	
Project Type	Environment	Conditions	Duralloy Solid Colour Range	
			Durability Warranty	Colour Warranty
Residential (<4 Levels)	Exterior	Mild	10 Years	10 Years
Non Habitable	Exterior	Mild	10 Years	10 Years
All Projects	Interior	General Interior	10 Years	10 Years

Duralloy Solid Colour range warranties

All Duralloy solid colour range Alumi Shield™ warranties are:

- Only suitable for coastal environments >100m from the high tide
- Not suitable in strongly acidic or caustic environments so the pH must be between 5 and 9.
- Available only when applied by a DGL Accredited Powder Coater to the warranty specification on recommended project types and conditions.

Please refer to page 6 for warranty implications for:

- Liquids other than coastal, river and lake salt water environments.
- Geothermal environments.

Perforated and expanded aluminium

Alumi Shield™ warranties on perforated and expanded aluminium are available for Duralloy Solid Colour range in the following environments:

- Interior** – General Interior conditions (E-Prime base coat not mandatory)
- Exterior** – Mild (E-Prime base coat not mandatory)

For more information about specifications on perforated and expanded aluminium visit dglpowders.com/perforated-aluminium

Conditions

Use the following table which references AS 2312.1, AS 4312 and ISO 9223 to identify the environment, conditions and atmospheric corrosivity categories. To further pinpoint your project this table can be used together with the corrosivity zone maps contained within AS 4312.

Environment	Conditions	Corrosivity Zone ³	Aluminium Corrosion Rate (g/m ²) ⁴	Carbon (Mild) Steel Corrosion Rate (g/m ²) ³	Example Environments
Exterior Environment	Mild	C2 Low	≤ 0.6	10–200	Arid, dry, urban, inland, city
		C3 Medium	0.6 – ≤ 2.0	200–400	Light Industrial, geothermal (>500m from source) ¹ and inland coastal (mild sea spray zone)
	Severe	C4 High	2 – ≤5	400–650	Sea shore (medium sea spray zone), offshore Islands and or geothermal (<500m from source) ²
		C5 Very High Marine & Industrial	5 – ≤10	650–1500	Sea shore (high sea spray zone e.g. surf), offshore Islands and heavy industrial

Project suitability – steel

Project Type	Corrosion Category		Primer System		Top Coat
	Environment	Conditions (including Corrosivity Level)	Zincshield	E-Prime™	Duralloy Solid Colour Range
Residential (<4 Levels)	Exterior	Mild (Medium)	✓	Optional*	✓
Residential (<4 Levels)	Exterior	Mild (Low)	✓	–	✓
Non Habitable	Exterior	Mild (Medium)	✓	Optional*	✓
Non Habitable	Exterior	Mild (Low)	✓	–	✓
All Projects	Interior	General Interior (Very low to low)	✓	–	✓

*Important Primer Advice

1. In Mild (Medium) exterior environments a 10 year corrosion warranty is available with Zincshield, E-Prime and a Duralloy top coat system.
2. Without E-Prime a 5 year corrosion warranty is available.

For more information about specifications visit dglpowders.com

Environment	Conditions	Corrosivity Zone ³	Aluminium Corrosion Rate (g/m ²) ⁴	Carbon (Mild) Steel Corrosion Rate (g/m ²) ³	Example Environments
Interior Environments	General Interior	C1 Very Low	Negligible	<10	Dry interiors (homes, offices, shops)
		C2 Low	≤ 0.6	10–200	Minor condensation (warehouses, sports halls)
	Moderate Interior	C3 Medium	0.6 – ≤ 2.0	200–400	High moisture (dairy and food processing plants, breweries, and commercial laundries)
		C4 High	2 – ≤ 5	400–650	Significant contamination (swimming pools)

1. Geothermal environments greater than 500m of a bore, mud pool, steam vent, or other source with a pH between 5 and 9. For a pH outside this consult DGL.
2. Geothermal hot spots within 500m of a bore, mud pool, steam vent, or other source.
3. The corrosion rates for the first year of exposure for the different corrosivity categories of Aluminium and Carbon (Mild) Steel are determined by the following standards:
 - AS 4312 - Atmospheric corrosivity zones in Australia.

- AS 2312.1 - Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings. Part 1: Paint coatings
- ISO 9223 - Corrosion of metals and alloys – Corrosivity of atmospheres – Classification, determination and estimation
4. The corrosion rates for the first year of exposure for the different corrosivity categories of aluminium are determined by the following standard:
 - ISO 9223 - Corrosion of metals and alloys – Corrosivity of atmospheres – Classification, determination and estimation.

Important warranty considerations

Your warranty can also be impacted by its proximity to liquids other than coastal, river and lake salt water environments and geothermal environments. A regular care and maintenance program must be implemented for warranty compliance.

Environments close to liquids other than coastal, river and lake salt water environments

Please refer to the guidance below for your product choice and to understand the warranty limitations in all environments where powder coated assets are close to liquids other than coastal, river and lake salt water environments (e.g. near swimming pools, fountains, or showers).

	Chemically Treated ¹	Clean tap, Fresh or Potable Water	Salt Water ¹	Other
Duralloy Solid Colour Range	○	●	◆	Seek advice from DGL

1. Aggressive liquids such as chemically treated liquids and salt water must be cleaned off immediately as per the DGL Care and Maintenance guide. Please note chemically treated water includes antimicrobial treatments, e.g. in pools, anti-corrosive chemicals, and soapy water in bathrooms and showers.

- ◆ Where indicated Alumi Shield™ warranties are available on areas > than 2m from the liquid.
- Where indicated Alumi Shield™ warranties are available any distance from the liquid.
- Where indicated Alumi Shield™ warranties are available on areas > than 1m from the liquid on interior applications and >2m on exterior applications.

Alumi Shield™ warranties are only available when applied by a DGL Accredited Powder Coater to the warranty specification on recommended project types and conditions.

All DGL powder product are NOT suitable in strongly acidic or caustic environments so the pH must be between 5 and 9.

Alumi Shield™ warranties are not available if the powder coating is immersed in any liquid.

Geothermal environments

For powder coated assets close to geothermal zones, the choice of product is dependent on the level of geothermal activity and specifically the distance from the geothermal source. As Duralloy is durable it is not suitable for environments close to geothermal activity (within 500m of the source). The corrosion zones or categories still apply based on distance from the sea and other factors.

* Distance to Geothermal Environment	Duralloy Solid Colour Range
Less than 500m from source	✘
Greater than 500m from source	Check with DGL

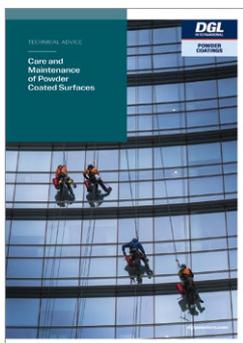
* Distance from bore, mud pool, steam vent, or other source with a pH between 5 and 9. For a pH outside this consult DGL.

Care and maintenance

Care and maintenance is essential for warranty compliance

To ensure the life of your asset is maximised and to comply with DGL Alumi Shield™ warranty requirements, a simple and regular maintenance program must be implemented and recorded in line with the DGL Care and Maintenance of Powder Coated Surfaces brochure.

For more information refer to the DGL Care and Maintenance of Powder Coated Surfaces brochure at dglpowders.com/tech-advice



Heavy Industrial Micro Environments

Please note that the atmospheric corrosivity zone can be superseded for some commercial projects, e.g. airports and manufacturing sites, due to localised influencing factors such as:

- Levels of atmospheric pollution, including salts, dirt, and grime, can all accumulate over time.
- Winds carry airborne debris that can cause erosive wear of the coating, e.g. sand causing abrasion.

Securing your warranty

DGL Accredited Powder Coaters

Only DGL Accredited Powder Coaters are able to issue our DGL Alumi Shield™ warranties after demonstrating their capability to meet stringent quality conditions and international standards. Warranties are only valid when applied by a DGL Accredited Powder Coater to the warranty specification on recommended projects, and subject to specified warranty terms and conditions.



For more information visit dglpowders.com/accredited

Product summary

Product Features	
Warranties	Alumi Shield™ available – refer to Warranty Benefits.
Technology	Durable polyester thermosetting powder. It is recommended that each project is coated with the same batch of powder, by the same applicator, in the same direction, i.e., all vertically or all horizontally and if possible at the same time. This is especially important when large visible areas of a project are powder coated, for example, cladding and perforated and expanded aluminium sheets.
Look	Solid colour
Finish	Matt, satin and gloss
Colour range	Available in a comprehensive range of core colours including popular COLORBOND® steel colours. View the range in DGL Colour Selectors, on aluminium swatches, or online. Cards and swatches can be ordered from dglpowders.com . If you cannot find the colour you require DGL offer a premium CustomColour™ service. Visit dglpowders.com
Standards met	Formulated to meet: AS 3715 and AAMA 2603. Reaction to fire test results: Classification of fire performance for Duralloy has a Group Number Classification of 1 according to the National Construction Code (NCC) Volume One Specifications C1.10 of the Building Code of Australia (BCA) and a Group Number Classification of 1-S according to the NZ Building Code Verification Method C/VM2 Appendix A: Establishing Group Numbers for lining materials. Also available is testing results for Industry Standard: AS/NZS1530.3. For more information refer to the Duralloy: Reaction to fire test results brochure available at dglpowders.com
Product Benefits	
Colour retention	Good colour retention.
Durability	Durable finish.
Aesthetic	Durable popular solid colour finishes.

Meets international standards

With over 50 years of experience, the AAMA (American Architectural Manufacturer's Association) is regarded as the standards leader for finishes on architectural aluminium. The DGL Duralloy solid colour range is formulated to meet: AAMA 2603 as well as Australian standard AS 3715.

For more information visit **fgiaonline.org**



Advice

Our dedicated consultants can help simplify the specification process, saving you time and money by providing the right coating advice for your project. They can provide:

- Documented project specific specifications
- Written confirmation of your project's eligibility for an Alumi Shield™ warranty
- Design, coating system and colour advice

Visit dglpowders.com

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