

PRODUCT SOLUTIONS

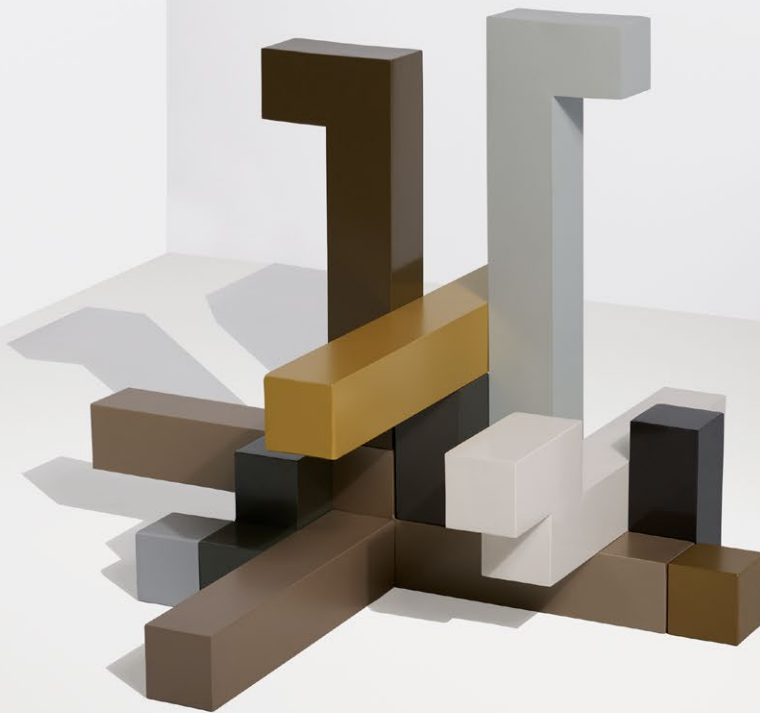
DURATEC™

ETERNITY™ PEARLESCENT RANGE



DGL
INTERNATIONAL

**POWDER
COATINGS**



dglpowders.com



The Duratec Eternity pearlescent range is a collection of beautiful decorative pearlescent and metallic finishes, delivered with warranty grade* advanced super durable polyester thermosetting powder.

- ✓ **Super durable finish**
- ✓ **Excellent colour retention**
- ✓ **Beautiful pearlescent and metallic finishes**
- ✓ **CustomColour™ service available**

The project: Gem, Waterline Place, Victoria, Australia.
Architect: Elenberg Fraser.
Photo credit: Timothy Burgess, Alex Jackson.
Product: Duratec Eternity in Linen Pearl.



Suitable substrates

Duratec Eternity is ideal for warranty grade applications over:

- Architectural aluminium including perforated and expanded aluminium.

Duratec Eternity 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

Duratec Eternity is suitable for use on most exterior project types greater than 10m from the high tide mark. Duratec Eternity is also suitable for most interior projects (including all BCA classes).

	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™ warranty after demonstrating their capability to meet stringent quality conditions and international standards. Visit dglpowders.com/warranties for more information.

Warranty benefits

The DGL Duratec Eternity pearlescent range is supported the DGL Alumi Shield™ warranty 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™ colour warranty are your assurance that Duratec Eternity 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 it relates. The DGL Alumi Shield™ warranty does not cover the services required for application.

Important design considerations

DGL Alumi Shield™ warranty is 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 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.au/warranties

Project suitability

Use the following tables to help identify where Duratec Eternity 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	Duratec Eternity	
			Durability Warranty	Colour Warranty
Monumental	Exterior	Mild, Severe	–	–
Prestigious Commercial	Exterior	Mild, Severe	25 Years	20 Years
Commercial	Exterior	Mild, Severe	25 Years	20 Years
Light Commercial	Exterior	Mild, Severe	25 Years	20 Years
Residential	Exterior	Mild, Severe	25 Years	20 Years
Non Habitable	Exterior	Mild, Severe	25 Years	20 Years
All Projects	Interior	Moderate Interior	25 Years	20 Years
All Projects	Interior	General Interior	25 Years	20 Years

Duratec Eternity warranties

All Duratec Eternity Alumi Shield™ warranty is:

- Only suitable for coastal environments >10m 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 Duratec Eternity in the following environments:

- Interior** – General Interior conditions (E-Prime base coat not mandatory); Moderate Interior (E-Prime base coat mandatory).
- Exterior** – Mild (E-Prime base coat not mandatory); Severe: (E-Prime basecoat mandatory).

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

Corrosion Category			Primer System		Top Coat
Project Type	Environment	Conditions (including Corrosivity Level)	Zincshield	E-Prime™	Duratec Eternity
Monumental	Exterior	Mild, Severe	–	–	–
Prestigious Commercial	Exterior	Severe (High to very high)	✓	✓	✓
Prestigious Commercial	Exterior	Mild (Medium)	✓	Optional*	✓
Prestigious Commercial	Exterior	Mild (Low)	✓	–	✓
Commercial	Exterior	Severe (High to very high)	✓	✓	✓
Commercial	Exterior	Mild (Medium)	✓	Optional*	✓
Commercial	Exterior	Mild (Low)	✓	–	✓
Residential	Exterior	Severe (High to very high)	✓	✓	✓
Residential	Exterior	Mild (Medium)	✓	Optional*	✓
Residential	Exterior	Mild (Low)	✓	–	✓
Non Habitable	Exterior	Severe (High to very high)	✓	✓	✓
Non Habitable	Exterior	Mild (Medium)	✓	Optional*	✓
Non Habitable	Exterior	Mild (Low)	✓	–	✓
All Projects	Interior	Moderate Interior (High)	✓	✓	✓
All Projects	Interior	Moderate Interior (Medium)	✓	Optional*	✓
All Projects	Interior	General Interior (Very low to low)	✓	–	✓

*Important Primer Advice

In Mild (Medium) environments a coat of E-Prime after Zincshield and prior to the top coat can be considered to extend the protection of the coated asset.

For all projects in severe conditions it is recommended to speak to a DGL Account Manager.

For more information about specifications **visit dglpowders.com.au**

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
Duratec Eternity	◆	●	◆	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 1m from the liquid.

● Where indicated Alumi Shield™ warranties are available any distance from the liquid.

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 Duratec Eternity is super durable it is suitable for environments close to geothermal activity (within 500m of the source) and beyond. The corrosion zones or categories still apply based on distance from the sea and other factors.

* Distance to Geothermal Environment	Duratec Eternity
Less than 500m from source	✓
Greater than 500m from source	✓

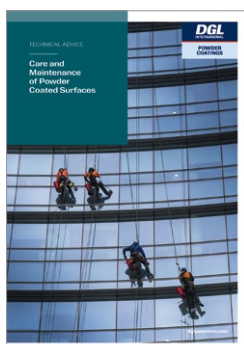
* Distance from bore, mud pool, steam vent, or other source with a pH between 5 and 9. For a pH outside this consult DGL.

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	Super durable polyester thermosetting powder. Duratec Eternity finishes containing pearlescent/mica and metallic pigments scatter and reflect light in a random way, therefore, exact colour uniformity should not be expected. Some subtle colour and appearance changes should also be expected when viewing in different light, at different angles and from varying distances. 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	Pearlescent and metallic
Finish	Matt, satin and gloss
Colour range	Available in a comprehensive range of core 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, AAMA 2603 and AAMA 2604. Reaction to fire test results Classification of fire performance for Duratec 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 are testing results for Industry Standard: AS/NZS1530.3. For more information visit dglpowders.com/spec-solutions
Product Benefits	
Colour retention	Excellent colour retention.
Durability	Super durable finish.
Aesthetic	Long lasting beautiful pearlescent and metallic finishes.

DGL Kinetic® Technology

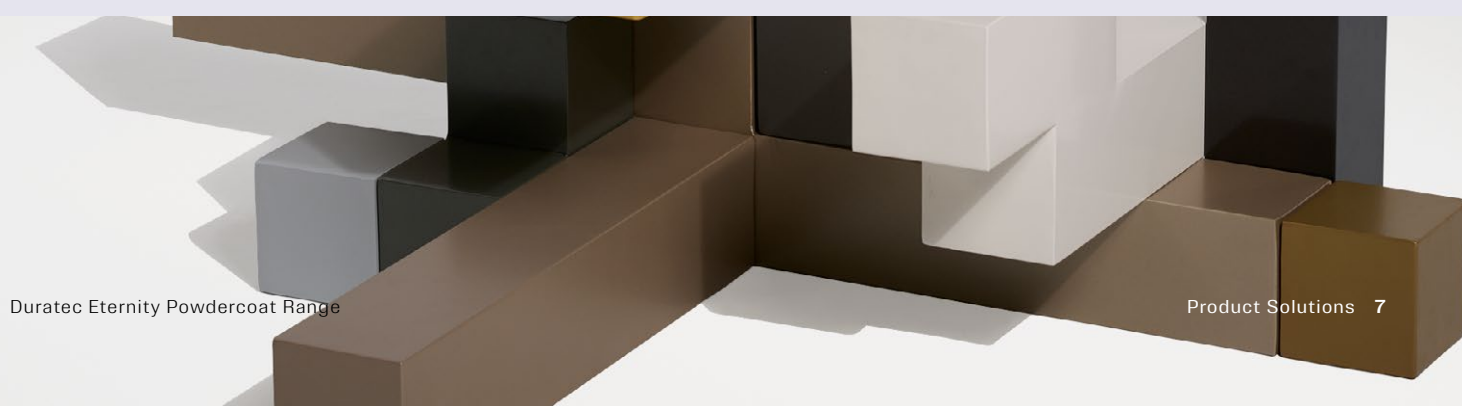
Duratec Eternity finishes are produced utilising either blended or bonded processes depending on their composition and the desired appearance.

Colours that are bonded are delivered with Kinetic® Technology, which uses a process to optimise the aesthetic effect of many of our pearlescent finishes. These finishes contain pearlescent and/or metallic pigments that produce a characteristic effect when bonded to powder particles. The process delivers a more consistent dispersion of particles across the surface resulting in a unique pearlescent or metallic lustre.

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. DGL Duratec Eternity is formulated to meet: AAMA 2603 and AAMA 2604 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

Offices

Australia

DGL International Powder Coatings
115 Pound Road West
Dandenong South VIC 3175

T (61) 3 8787 4500

New Zealand

DGL International Powder Coatings
31B Hillside Road
Glenfield, Auckland 0627

T (64) 4 896 0911

East China

DGL International Powder Coatings
Room 417, Building 2,
No.127, Lane127 Jinwen Road
Zhuqiao Town, Pudong New District
Shanghai, China 201323

T (86) 21 3825 8507

South China

DGL International Powder Coatings
Room 505, Building 10, Li He Technology Park,
99 Tao Yuan East Road, Shi Shan Town,
Nan Hai, Fo Shan, Guangdong,
China 528200

T (86) 21 3825 8507

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