PRODUCT SOLUTIONS



# **DURATEC**®

ETERNITY® PEARLESCENT RANGE





















# Worth doing, Worth Dulux.®

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<sup>™</sup> service available

The project: Gem, Waterline Place, Victoria.

Architect: Elenberg Fraser.

Photo credit: Timothy Burgess, Alex Jackson.

Product: Duratec Eternity in Linen Pearl.

Dulux Colour Awards 2020 Finalist:

Commercial and Multi Residential Exterior



### Suitable substrates

Duratec Eternity is ideal for warranty grade applications over:

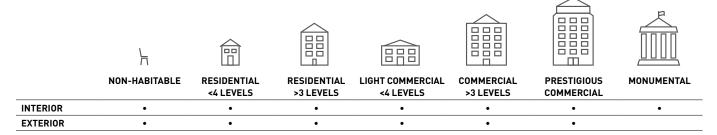
- Architectural aluminium including perforated and expanded aluminium.
- Steel (mild), bright/semi bright steel, black steel and blue steel.

Duratec Eternity can also be used on the following metals but these are not warranted:

• Galvanised steel, stainless steel and ZINCALUME®.

### Project types

Duratec Eternity is suitable for use on architectural aluminium and steel 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 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.

<sup>\*</sup> Only Dulux Accredited Powder Coaters are able to issue our Dulux Alumi Shield<sup>TM</sup> and Steel Shield<sup>TM</sup> warranties after demonstrating their capability to meet stringent quality conditions and international standards. Visit duluxpowders.com.au/warranties for more information.

### Warranty benefits

The Dulux Duratec Eternity pearlescent range is supported by Dulux Alumi Shield™ and Dulux Steel Shield™ warranties when applied by a Dulux Accredited Powder Coater to the warranty specification on recommended project types and conditions.

### Alumi Shield™ Warranty

### Steel Shield™ Warranty

The Steel Shield™ warranty is made up of two key

components, a colour warranty (for fade and chalking)

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

SHIELD

- ullet The Alumi Shield  $^{TM}$  and Steel Shield  $^{TM}$  colour warranties 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.
- The Steel Shield™ corrosion warranty is your assurance that the coating system will not corrode more than 5% in accordance with the degree of corrosion as a percentage contained in AS 2312.1
- Warranties are only valid when applied by a Dulux Accredited Powder Coater to the warranty specification on recommended project types and conditions.
- The Alumi Shield™ and Steel Shield™ warranties are only valid when applied by a Dulux Accredited Powder Coater to the warranty specification on recommended project types and conditions and maintained within the recommended Care and Maintenance Guidelines.
- The Dulux Alumi Shield<sup>TM</sup> and Steel Shield<sup>TM</sup> warranties are warranties in relation to the relevant Dulux products to which they relate. Dulux Alumi Shield™ and Steel Shield™ warranties do not cover the services required for application.
- Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

### Important design considerations

Dulux Alumi Shield™ and Steel Shield™ warranties are available on a wide range of fabricated architectural aluminium and steel 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.
- Sealed areas are appropriately sealed to last the duration of the warranty It is essential that the choice of other materials that contribute to protection such as sealants should be made to ensure that a Álumi Shield™ and Steel Shield™ warranty is not void due to the sealants failure. This is important if only one side of a section of metal be coated, it must be in a sealed environment, i.e. not exposed to moisture, air and excessive heat. Should the seal fail, and a claim is made this warranty will be void as the integrity of the seal is not the responsibility of Dulux.
- 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 or any other circumstances beyond the reasonable control of Dulux. 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™ and Steel Shield™ warranties including terms and conditions visit duluxpowders.com.au/warranties

Duratec Eternity Powdercoat Range Product Solutions 3

# **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, I             | Тор (        | Top Coat          |                     |                  |  |  |
|------------------------|--------------|-------------------|---------------------|------------------|--|--|
| Project Type           | Environment  | Conditions        | Duratec             | Duratec Eternity |  |  |
| гтојесттуре            | Liivironmeni | Conditions        | 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  $^{TM}$  and Steel Shield  $^{TM}$  warranties are:

- 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 Dulux 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<sup>TM</sup> warranties on perforated and expanded aluminium are available for Duratec Eternity in the following environments:

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

For more information about specifications on perforated and expanded aluminium visit duluxpowders.com.au/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<br>Zone <sup>4</sup>    | Aluminium<br>Corrosion<br>Rate<br>(g/m2) <sup>5</sup> | Carbon<br>(Mild) Steel<br>Corrosion<br>Rate<br>(g/m2) <sup>4</sup> | Example<br>Environments  |
|--------------------------------|------------|-------------------------------------|---|--|--|
|                                |            | C2 Low                              | ≤ 0.6   | 10–200   | Arid, dry, urban, inland, city   |
| Exterior<br>Environment Severe | Mild       | C3 Medium                           | 0.6 – ≤ 2.0   | 200–400  | Light Industrial, geothermal (>500m from<br>source) <sup>1</sup> and inland coastal (mild sea<br>spray zone) |
|                                | Severe     | C4 High                             | 2 – ≤5  | 400–650  | Sea shore (medium sea spray zone),<br>offshore Islands³ and or geothermal<br>(<500m from source)²            |
|                                |            | C5 Very High<br>Marine & Industrial | 5 – ≤10   | 650–1500   | Sea shore (high sea spray zone e.g. surf),<br>offshore Islands³ and heavy industrial                         |



### Project suitability - steel

| Corrosion Category     |             |                                    | Primer System |                      | Top Coat              |                    |
|------------------------|-------------|------------------------------------|---------------|----------------------|-----------------------|--------------------|
|                        |             | Conditions                         |               |                      | Duratec Eternity      |                    |
| Project Type           | Environment | (including Corrosivity Level)      | Zincshield    | E-Prime <sup>™</sup> | Corrosion<br>Warranty | Colour<br>Warranty |
| Monumental             | Exterior    | Mild, Severe                       | -             | -                    | -                     | -                  |
| Prestigious Commercial | Exterior    | Severe (High to very high)         | ✓             | ✓                    | 5 Years               | 20 Years           |
| Prestigious Commercial | Exterior    | Mild (Medium)                      | ✓             | Optional*            | 5 or 10 Years*        | 20 Years           |
| Prestigious Commercial | Exterior    | Mild (Low)                         | ✓             | -                    | 10 Years              | 20 Years           |
| Commercial             | Exterior    | Severe (High to very high)         | ✓             | ✓                    | 5 Years               | 20 Years           |
| Commercial             | Exterior    | Mild (Medium)                      | ✓             | Optional*            | 5 or 10 Years*        | 20 Years           |
| Commercial             | Exterior    | Mild (Low)                         | ✓             | -                    | 10 Years              | 20 Years           |
| Residential            | Exterior    | Severe (High to very high)         | ✓             | ✓                    | 5 Years               | 20 Years           |
| Residential            | Exterior    | Mild (Medium)                      | $\checkmark$  | Optional*            | 5 or 10 Years*        | 20 Years           |
| Residential            | Exterior    | Mild (Low)                         | ✓             | -                    | 10 Years              | 20 Years           |
| Non Habitable          | Exterior    | Severe (High to very high)         | ✓             | ✓                    | 5 Years               | 20 Years           |
| Non Habitable          | Exterior    | Mild (Medium)                      | ✓             | Optional*            | 5 or 10 Years*        | 20 Years           |
| Non Habitable          | Exterior    | Mild (Low)                         | ✓             | -                    | 10 Years              | 20 Years           |
| All Projects           | Interior    | Moderate Interior (High)           | ✓             | ✓                    | 5 Years               | 20 Years           |
| All Projects           | Interior    | Moderate Interior (Medium)         | ✓             | Optional*            | 5 or 10 Years*        | 20 Years           |
| All Projects           | Interior    | General Interior (Very low to low) | ✓             | -                    | 10 Years              | 20 Years           |

### \*Important Primer Advice

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

For all projects in severe conditions it is recommended to speak to a Dulux Account Manager or call the Advice line on 13 24 99.

#### For more information about specifications call our Advice line on 13 24 99 or visit duluxpowders.com.au

| Environment                    | Conditions          | Corrosivity<br>Zone <sup>4</sup> | Aluminium<br>Corrosion<br>Rate<br>(g/m2) <sup>5</sup> | Carbon<br>(Mild) Steel<br>Corrosion<br>Rate<br>(g/m2) <sup>4</sup>                    | Example<br>Environments                       |
|--------------------------------|---------------------|----------------------------------|---|---|---|
|                                | General<br>Interior | C1 Very Low                      | Negligible  | <10   | Dry interiors (homes, offices, shops)         |
| Interior                       |                     | C2 Low                           | ≤ 0.6   | 10–200  | Minor condensation (warehouses, sports halls) |
| Environments Moderate Interior | C3 Medium           | 0.6 – ≤ 2.0                      | 200–400   | High moisture (dairy and food processing plants, breweries, and commercial laundries) |   |
|                                | interior            | 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 Dulux.
- 2. Geothermal hot spots within 500m of a bore, mud pool, steam vent, or other source.
- 3. All offshore islands including Waiheke Island, Stewart Island, Fraser Island and Pacific islands e.g. PNG, Fiji, Samoa, Tonga, Tahiti, Noumea.
- 4. 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
- 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 <sup>1</sup> | Clean tap, Fresh or<br>Potable Water | Salt Water <sup>1</sup> | Other                                   |
|------------------|---------------------------------|--------------------------------------|-------------------------|---|
| Duratec Eternity | <b>*</b>                        | •                                    | *                       | Seek advice from Dulux<br>Call 13 24 99 |

- 1. Aggressive liquids such as chemically treated liquids and salt water must be cleaned off immediately as per the Dulux 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™ and Steel Shield™ warranties are available on areas >than 1 m from the liquid.
- Where indicated Alumi Shield™ warranties are available any distance from the liquid.

Alumi Shield $^{TM}$  and Steel Shield $^{TM}$  warranties are only available when applied by a Dulux Accredited Powder Coater to the warranty specification on recommended project types and conditions.

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

Alumi Shield™ and Steel 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<br>Environment | Duratec<br>Eternity |
|---|---------------------|
| Less than 500m from source              | ✓                   |
| Greater than 500m from source           | ✓                   |

<sup>\*</sup> Distance from bore, mud pool, steam vent, or other source with a pH between 5 and 9. For a pH outside this consult Dulux.

### Care and maintenance

# Care and maintenance is essential for warranty compliance

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



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

# **Securing your warranty**

### **Dulux Accredited Powder Coaters**

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



For more information visit duluxpowders.com.au/accredited

# **Product summary**

| Product Features |   |  |  |  |
|------------------|---|--|--|--|
| Warranties       | Alumi Shield™ and Steel 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   |  |  |  |
|                  | Available in a comprehensive range of core colours.   |  |  |  |
| Colour range     | View the range in Dulux Colour Selectors, on aluminium swatches, or online. Cards and swatches can be ordered from <b>duluxpowders.com.au</b> . If you cannot find the colour you require Dulux offer a premium CustomColour™ service. Call 13 24 99 or visit <b>duluxpowders.com.au</b>  |  |  |  |
|                  | Formulated to meet: AS 3715, AAMA 2603 and AAMA 2604.   |  |  |  |
|                  | Reaction to fire test results:  |  |  |  |
| Standards met    | 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 is testing results for Industry Standard: AS/NZS1530.3.  |  |  |  |
|                  | For more information call 13 24 99 or refer to the Duratec: Reaction to fire test results brochure available at duluxpowders.com.au   |  |  |  |
| Product Benefits |   |  |  |  |
| Colour retention | Excellent colour retention.   |  |  |  |
| Durability       | Super durable finish.   |  |  |  |
| Aesthetic        | Long lasting beautiful pearlescent and metallic 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. Dulux 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 line

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™ or Steel Shield™ warranty
- Design, coating system and colour advice

Call 13 24 99 or visit duluxpowders.com.au

### Offices

#### Australia

**Dulux Powder Coatings** 1-15 Pound Road West Dandenong South VIC 3175 T (61) 3 8787 4500

#### New Zealand

Dulux Powder Coatings 31B Hillside Road Glenfield, Auckland 0627 T (64) 4 896 0911

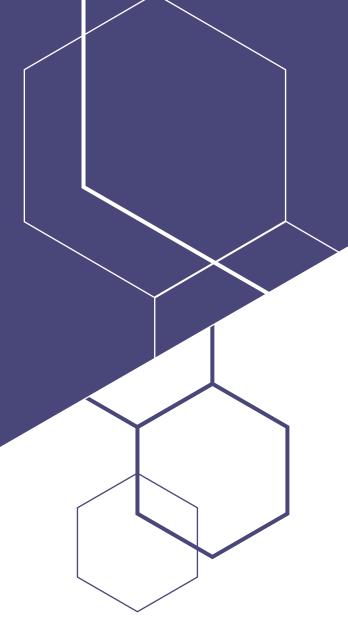
#### Singapore

DGL International Powder Coatings 1 Commonwealth Lane #09-19 One Commonwealth Singapore 149544 T (65) 6 8381 010

#### China

DGL International Powder Coatings Room 406, No.8, Lane 1977, JinShaJiang Road Shanghai, China, PC 200333

T (86) 21 6173 8800





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