Technical Requirements for Alumi Shield™ Warranty

AAMA 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 AAMA objective is to develop and improve quality standards, encourage research & development and set benchmarks for product performance of architectural products. For finishing of architectural aluminium, Dulux recommend three internationally recognised AAMA standards, AAMA 2603 (for BCA Class 1 and 10), and AAMA 2604 and 2605 (for all BCA Classes). Specifying powder coatings that comply with one of the below AAMA standards removes all doubt for the fabricator and applicator. The standards spell out the level of both colour performance and film properties required. The Dulux powder coating products that meet or exceed these standards are shown below.

Protection for Aluminium

- Fluoroset Electro
- Duratec Duralloy Precious
- AAMA 2605
- AAMA 2604
- AAMA 2603

Coating Type
- Ultra Durable Fluoroplymer
- Super Durable Polyester
- Durable Polyester

Care and Maintenance

To ensure the life of your asset is maximised and to comply with Dulux warranty requirements, a simple and regular maintenance program must be implemented and recorded in line with the Dulux Care and Maintenance Brochure. For more information please Call 13 24 99 or visit duluxpowders.com.au/tech-advice

Securing your Alumi Shield™ Warranty

Request a Specification

Our dedicated and knowledgeable specification consultants can help simplify the specification process, saving you time and money by ensuring you achieve the best coating specification for the job. 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.

Call 13 24 99 or visit duluxpowders.com.au

Dulux Accredited Powder Coaters

Only Dulux Accredited Powder Coaters are able to issue our Dulux Alumi 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 project types and conditions.

For information visit duluxpowders.com.au/accredited

Offices

Australia
Dulux Powder & Industrial Coatings
1-15 Pound Road West
Dandenong South VIC 3175
✆ (61) 3 8787 4500

New Zealand
Dulux Powder & Industrial Coatings
31B Hillside Road
Glenfield, Auckland, New Zealand
✆ (64) 9 441 8244

Singapore
DGL International Powder Coatings
No.100 Pasir Panjang Road
#02-10, Singapore 118518
✆ (65) 6 8301 010

China
DGL International Powder Coatings
Room 406, No.8, Lane 1977, JinShaJiang Road,
Shanghai, China, PC 200333
✆ (86) 21 6173 8800
**Worth doing. Worth Dulux.®**

Dulux Powder Coatings are an ideal choice for the long term protection of architectural aluminium items for your next project and provide assurance through the issue of Alumi Shield™ warranties

### Suitable Substrates

Alumi Shield™ warranties are available for architectural aluminium applications, including perforated and expanded aluminium, on approved specifications for the following project types:

<table>
<thead>
<tr>
<th>Non-Habitable</th>
<th>Residential 4 Levels</th>
<th>Residential 3 Levels</th>
<th>Commercial 4 Levels</th>
<th>Commercial 3 Levels</th>
<th>Prestigious Commercial</th>
<th>Monumental</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTERIOR</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>EXTERIOR</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

- Non-Habitable projects are those that are not dwelling types. Examples can be furniture, bus shelters, signage etc.
- Residential properties are typically easy to maintain, given their height and access.
- High-rise projects are less sheltered from neighbouring buildings, raising their exposure and reducing their ease of maintenance.
- Monumental projects attract the most attention and have the highest standards required to uphold the reputation expected from landmark sites.

### Warranty Performance

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

#### Colour Warranty

The Alumi Shield™ Colour warranty is your assurance that the colour integrity will be maintained.

- It is made up of two components:
  - Fade
  - Chalk

#### Durability Warranty

The Alumi Shield™ Durability warranty is your assurance of film integrity.

- The powder coating will not peel, crack or flake for the warranty period from the date the product is applied to the metal.

### Terms and conditions apply

Dulux Alumi Shield™ Warranties are your assurance that the coating will not:

1. **Fade (colour)** – Colour fade testing will give a delta E (Hunter) laboratory reading less than five units from the original colour. In accordance with ASTM D2244.
2. **Chalk** – not exceed a rating of 2 for whites & 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 a film integrity assurance that products will not peel, crack or flake for the warranty period from the date the product is applied to the metal.

All Dulux premium powder coat products are backed by product specific Alumi Shield™ warranties. Below is an overview of the warranty periods by product available from Dulux.

<table>
<thead>
<tr>
<th>Warranty</th>
<th>Fluoroset</th>
<th>Electro</th>
<th>Duratec</th>
<th>Duralloy</th>
<th>Precious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alumi Shield™</td>
<td>35 Years</td>
<td>25 Years</td>
<td>25 Years</td>
<td>10 Years</td>
<td>10 Years</td>
</tr>
<tr>
<td>Aluminium Durability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminium Colour</td>
<td>30 Years</td>
<td>15 Years</td>
<td>20 Years*</td>
<td>10 Years</td>
<td>10 Years</td>
</tr>
</tbody>
</table>

*Excludes Intensity – 15 Years
Project Suitability

It is important to define your project correctly to ensure the correct standard of product is specified and the performance and warranty is able to be gained for your project.

Product Suitability by Project

Use the following table to help identify the product choice you have to gain Alumi Shield™ on your project. Refer to the conditions information to determine the environment that your project will be exposed to.

<table>
<thead>
<tr>
<th>Project Details</th>
<th>Environment and Conditions</th>
<th>Top Coat Choice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Type</td>
<td>Conditions</td>
<td>Fluoraset®</td>
</tr>
<tr>
<td>Monumental</td>
<td>Mild, Severe or Tropical</td>
<td>★</td>
</tr>
<tr>
<td>Prestigious Commercial</td>
<td>Mild, Severe or Tropical</td>
<td>★</td>
</tr>
<tr>
<td>Commercial Developments</td>
<td>Mild, Severe or Tropical</td>
<td>★</td>
</tr>
<tr>
<td>Residential (&gt;3 levels)</td>
<td>Mild, Severe or Tropical</td>
<td>★</td>
</tr>
<tr>
<td>Residential (&lt;4 levels)</td>
<td>Severe or Tropical</td>
<td>★</td>
</tr>
<tr>
<td>Non Habitable</td>
<td>Mild</td>
<td>★</td>
</tr>
<tr>
<td>All Projects</td>
<td>General Interior</td>
<td>★</td>
</tr>
</tbody>
</table>

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

Please refer to Interior and exterior environments close to liquids for warranty implications where powder coatings may be in close proximity to liquids other than the sea in such environments.

Interior and exterior environments close to liquids other than the sea

For powder coated assets close to liquids other than the sea, e.g. fences near swimming pools, fountains, bathrooms or furniture etc. Please refer to the guidance below for your product choice and to understand the warranty limitations in these environments.

1. Please note chemically treated water includes antimicrobial treatments, e.g. in pools, anti-corrosive chemicals, and soapy water in bathrooms and showers.

2. Where indicated Alumi Shield™ warranties are available on areas > than 2m from the liquid (ie outside the splash zone).

3. Where indicated Alumi Shield™ warranties are available on areas > than 5m from the liquid.

4. All Dulux powder products are NOT suitable in strongly acidic or caustic environments so PH must be between 5 and 9.

Project Details

<table>
<thead>
<tr>
<th>Environment Conditions</th>
<th>Corrosivity Level &amp; Zone</th>
<th>Former AS/NZ 2312 Category</th>
<th>Mild Steel Corrosion Rate</th>
<th>Example environments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior Environment</td>
<td>Mild</td>
<td>Site (C1)</td>
<td>1.3 - 25</td>
<td>Arid, urban, inland city, Industrial, geothermal and coastal</td>
</tr>
<tr>
<td></td>
<td>High (C4)</td>
<td>Very high (C5-M, C5-I)</td>
<td>50-80</td>
<td>Sea shore (surf), offshore islands &amp; or heavy industrial environments</td>
</tr>
<tr>
<td></td>
<td>Very high (T)</td>
<td>F</td>
<td>80-200</td>
<td>High, humid and monsoonal locations and islands</td>
</tr>
<tr>
<td>Interior Environment</td>
<td>Very low (C1)</td>
<td>A</td>
<td>≤ 1.3</td>
<td>Dry interiors (offices, shops)</td>
</tr>
<tr>
<td></td>
<td>low (C3)</td>
<td>B</td>
<td>≤ 1.3</td>
<td>Minor condensation (warehouses, sports halls)</td>
</tr>
<tr>
<td></td>
<td>High (C6)</td>
<td>D</td>
<td>26-50</td>
<td>High moisture (food processing, breweries, dairies)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significant contamination (swimmiings pools)</td>
</tr>
</tbody>
</table>

*Chemically Treated | Clean Top, Fresh or Potable Water | Salt Water | Other |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoraset®</td>
<td>★</td>
<td>★</td>
<td>★</td>
</tr>
<tr>
<td>Electro®</td>
<td>★</td>
<td>★</td>
<td>★</td>
</tr>
<tr>
<td>Duratec®</td>
<td>★</td>
<td>★</td>
<td>★</td>
</tr>
<tr>
<td>Precious®</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Duralloy®</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Seek advice from Dulux Call 13 24 99

Conditions

Use the following table which references AS2312.1 and AS3715 to identify the environment, conditions and atmospheric corrosivity categories.

<table>
<thead>
<tr>
<th>Environment</th>
<th>Conditions</th>
<th>Corrosivity Level &amp; Zone</th>
<th>Former AS/NZ 2312 Category</th>
<th>Mild Steel Corrosion Rate</th>
<th>Example environments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior</td>
<td>Mild</td>
<td>Site (C1)</td>
<td>1.3 - 25</td>
<td>Arid, urban, inland city, Industrial, geothermal and coastal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>Very high (C5-M, C5-I)</td>
<td>50-80</td>
<td>Sea shore (surf), offshore islands &amp; or heavy industrial environments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Very high</td>
<td>F</td>
<td>80-200</td>
<td>High, humid and monsoonal locations and islands</td>
<td></td>
</tr>
<tr>
<td>Interior</td>
<td>Very low</td>
<td>A</td>
<td>≤ 1.3</td>
<td>Dry interiors (offices, shops)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>low</td>
<td>B</td>
<td>≤ 1.3</td>
<td>Minor condensation (warehouses, sports halls)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>D</td>
<td>26-50</td>
<td>High moisture (food processing, breweries, dairies)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Significant contamination (swimmiings pools)</td>
<td></td>
</tr>
</tbody>
</table>

1. Please note chemically treated water includes antimicrobial treatments, e.g. in pools, anti-corrosive chemicals, and soapy water in bathrooms and showers.

2. Where indicated Alumi Shield™ warranties are available on areas > than 2m from the liquid (ie outside the splash zone).

3. Where indicated Alumi Shield™ warranties are available on areas > than 5m from the liquid.

4. All Dulux powder products are NOT suitable in strongly acidic or caustic environments so PH must be between 5 and 9.

For more information on Alumi Shield™ please call 13 24 99 or visit duluixpowders.com.au

*Topical projects: It is recommended to speak to a Dulux Account Manager or call the advice line for all projects in Tropical locations.

1. Corrosion rate is for uncoated steel AS3715.2
2. Geothermal environments with a PH 5-9 & 3. For PH outside this consult Dulux
3. OFFshore islands that are not tropical include Whitsiae, Stewart Island, Fraser Island etc.
4. Tropical islands include Australian Islands north of Whitsley and Pacific Islands such as PNG, Fiji, Samoa, Tonga
Technical Requirements for Alumi Shield™ Warranty

AAMA 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 AAMA objective is to develop and improve quality standards, encourage research & development and set benchmarks for product performance of architectural products. For finishing of architectural aluminium, Dulux recommend three internationally recognised AAMA standards, AAMA 2603 (for BCA Class 1 and 10), and AAMA 2604 and 2605 (for all BCA Classes). Specifying powder coatings that comply with one of the below AAMA standards removes all doubt for the fabricator and applicator. The standards spell out the level of both colour performance and film properties required. The Dulux powder coating products that meet or exceed these standards are shown below.

<table>
<thead>
<tr>
<th>AAMA Standards</th>
<th>Fluoroset</th>
<th>Electro</th>
<th>Duratec</th>
<th>Duralloy</th>
<th>Precious</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAMA 2603</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAMA 2604</td>
<td>●</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAMA 2605</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
<td>●</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coating Type</td>
<td>Ultra Durable Fluoropolymer</td>
<td>Super Durable Polyester</td>
<td>Super Durable Polyester</td>
<td>Durable Polyester</td>
<td>Durable Polyester</td>
</tr>
</tbody>
</table>

Care and Maintenance

To ensure the life of your asset is maximised and to comply with Dulux warranty requirements, a simple and regular maintenance program must be implemented and recorded in line with the Dulux Care and Maintenance Brochure. For more information please **Call 13 24 99 or visit duluxpowders.com.au/tech-advice**

Securing your Alumi Shield™ Warranty

Request a Specification

Our dedicated and knowledgeable specification consultants can help simplify the specification process, saving you time and money by ensuring you achieve the best coating specification for the job. 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.

**Call 13 24 99 or visit duluxpowders.com.au**

Dulux Accredited Powder Coaters

Only Dulux Accredited Powder Coaters are able to issue our Dulux Alumi 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 project types and conditions.

**For information visit duluxpowders.com.au/accredited**
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.

Call 13 24 99
or visit www.duluxpowders.com.au

Offices

Australia
Dulux Powder & Industrial Coatings
1-15 Pound Road West
Dandenong South VIC 3175
✆ (61) 3 8787 4500

New Zealand
Dulux Powder & Industrial Coatings
31B Hillside Road
Glenfield, Auckland, New Zealand
✆ (64) 9 441 8244

Singapore
DGL International Powder Coatings
No.100 Pasir Panjang Road
#02-10, Singapore 118518
✆ (65) 6 8301 010

China
DGL International Powder Coatings
Room 406, No.8, Lane 1977, JinShaJiang Road,
Shanghai, China, PC 200333
✆ (86) 21 6173 8800

Dulux, Duralloy, Precious, Duratec, Electro device mark, Fluoroset, Zincshield, Worth doing, worth Dulux and Dulux World of Colour are registered trade marks and Alumi Shield, Steel Shield, E-Prime and Dulux Accredited Powder Coater are trade marks of DuluxGroup (Australia) Pty Ltd. Copyright 2019 DuluxGroup (Australia) Pty Ltd.