OIL & GAS
Protecting Australasia’s assets.
PROTECTING AUSTRALASIA’S ASSETS

FOR more than 75 years, Dulux has been here supplying heavy duty coatings systems for complete protection against corrosion, chemical attack, abrasion, and impact damage for the maintenance of asset value and production efficiency.

From pit to port, and from off-shore platforms, oil, gas and mining operations and processing, to transport, loaders, wharf piles and structures - Dulux’s range includes products designed specifically to withstand the corrosive chemical exposure, impact, and abrasion of the oil and gas industries.

In addition Australasia’s vast, harsh and unique regional conditions, with extremes in UV radiation, high/low temperature deviations, and high coastal exposures call for heavy duty protective coating systems designed specifically for the substrate and environment they are to be used in.

Industries like

- Oil and Gas – both on land and off shore
- Mining and Mineral processing
- Major infrastructure and construction projects
- Power generation and transmission
- Water storage and water waste treatment plants

All have specific needs that require unique coatings solutions.

With our modern, world-class, purpose built research and development laboratories, supported by our Australasian manufacturing bases, our extensive distribution network and our experienced specification consultants and Sales Executives, Dulux Protective Coatings has the people, the products, and the processes to facilitate the supply and application of the right coating systems without delays and with confidence.

Dulux Protective Coatings – We’re here across Australasia.

WE’RE HERE
OIL AND GAS INDUSTRY

LOCAL EXPERTISE FOR INTERNATIONAL PROJECTS

In every situation from oil drilling, gas extraction and off-shore platforms, through refineries and purification plants to product storage and distribution, Dulux Protective Coatings has over 75 years of experience in corrosion protection.

Refineries and gas plants suffer many forms of corrosion, such as pitting from water condensation, embrittlement from hydrogen exposure, and stress corrosion cracking from sulphides. Protection against corrosion is essential to minimise downtimes, work safely, and maintain asset value.

The most effective corrosion protection is offered by zinc rich primers and high build barrier coats. In areas of UV exposure, high performance UV resistant coatings provide essential protection against photo degradation to prolong the life of the coating system and your assets.

WHY IS AUSTRALASIA DIFFERENT?

The high UV radiation endured across Australasia readily breaks down coating systems designed to protect steel from corrosion. Although many protective coatings are tested in northern hemisphere exposure sites such as Florida, Dulux Protective Coatings are tested in the significantly harsher conditions in Allunga, Queensland. Therefore, coatings that have passed exposure testing overseas simply may not perform adequately here.

Australasia’s developments are largely coastal, and are exposed to high atmospheric chloride levels that corrode normally corrosion-resistant aluminium and stainless steel, and cause rapid conversion of exposed zinc metal to white zinc oxide corrosion products.

PROTECTING YOUR ASSETS IN THE AUSTRALASIAN REGION

Our coating systems are principally designed to provide long term protection of plant and equipment from atmospheric deterioration and corrosion, and chemical attack more effectively than hot dip galvanising, particularly in the humid, acidic, and salt laden environments that characterise this region. Our zinc rich primers are fully compatible with our high build epoxy barrier coats, our tank linings and our UV resistant polyurethanes to ensure long term durability.

Experience repeatedly demonstrates that our systems are also far more easily maintained than “duplex systems” - protecting your assets, and maintaining asset value and productivity.

PAST PROJECTS

Many oil and gas facilities across Australasia today are being effectively maintained with Dulux Protective Coatings. A small selection of relevant case histories includes:

- AGL Agility Gas pipes and heads main NG trunk line NSW & SA
- ALMC Lytton Tank Farm & Piping Qld
- Apache Energy off shore platforms
- Austank Diesel Tanks Vic
- Australian Renewable Fuels Biodiesel Plant SA
- BHP V Minerva Vic
- BP Depot Geralton WA
- BP Mareeba Bulk Storage Tanks Qld
- BP Mobile Diesel Tanks WA
- Caltex Storage Tanks WA
- Dampier to Bunbury Gas Pipeline WA
- Ecogen Newport Diesel Tanks & Stoplocks Vic
- Enerflex Australasia gas energy generators Qld
- Esso West Tuna Bass Strait
- Exxon Mobil Esso boilers Vic
- Gorgon LNG Project
- Halliburton Australia mobile pump units Qld
- Mobil Australia Tanks Vic
- SAFE Astoria off shore platform
- Shell Australia Tas
- Troughton Island Jet A-1 Fuel Tanks WA
- Woodside Petroleum Limited North Rankin A platform

Protecting Australasia’s assets.
# OUR COATING SYSTEMS GUIDE FOR OIL & GAS - ON SHORE

The following is intended as a guide only. To provide tailor made and detailed specifications for your project, please call your Dulux Protective Coatings Technical Consultant.

## ACID & ALKALI BUNDING AREAS - STEEL
Preparation: Ref AS1627.4, Sa 3
1st coat: DULUX Durepon® EZP @ 75μm
2nd coat: DULUX Flexituff® @ 2500μm

## ACID & ALKALI BUNDING AREAS - CONCRETE
Preparation: Diamond grind
1st coat: DULUX Luxepoxy® Sealer @ 40μm
2nd coat: DULUX Flexituff® @ 2500μm

## COLD PREHEAT TRAIN - STEEL
Preparation: Ref AS1627.4, Sa 2½
1st coat: DULUX Zincanode® 402 @ 75μm
2nd coat: DULUX Duremax® GPE @ 125μm
3rd coat: DULUX Weathermax® HBR @ 100μm

## CRUDE STORAGE TANKS - STEEL EXTERNALS
Preparation: Ref AS1627.4, Sa 2½
1st coat: DULUX Zincanode® 402 @ 75μm
2nd coat: DULUX Duremax® GPE @ 125μm
3rd coat: DULUX Weathermax® HBR @ 100μm

## CRUDE STORAGE TANKS - STEEL INTERNAL LININGS
Preparation: Ref AS1627.4, Sa 3
1st coat: DULUX Durekem® MPP @ 150μm
2nd coat: DULUX Durekem® MPP @ 150μm

## DESALTER - STEEL
Preparation: Ref AS1627.4, Sa 2½
1st coat: DULUX Zincanode® 402 @ 75μm
2nd coat: DULUX Duremax® GPE @ 125μm
3rd coat: DULUX Weathermax® HBR @ 100μm

## DISTILLATION COLUMNS AND SPLITTERS
Preparation: Ref AS1627.4, Sa 2½
1st coat: DULUX Zincanode® 402 @ 75μm
2nd coat: DULUX Duremax® GPE @ 125μm
3rd coat: DULUX Weathermax® HBR @ 100μm

## EXHAUST STACKS
Preparation: Ref AS1627.4, Sa 2½
1st coat: DULUX Zincanode® 402 @ 75μm
2nd coat: DULUX Duremax® GPE @ 125μm
3rd coat: DULUX Weathermax HBR @ 100μm

## FIN FAN COOLERS
Preparation: Ref AS1627.4, Sa 2½
1st coat: DULUX Zincanode® 402 @ 75μm
2nd coat: DULUX Duremax® GPE @ 125μm
3rd coat: DULUX Weathermax® HBR @ 100μm

## FURNACES - TO 400°C
Preparation: Ref AS1627.4, Sa 2½
1st coat: DULUX Durezinc™ 190 @ 75μm
2nd coat: DULUX Hi Temp™ 400 @ 20μm
3rd coat: DULUX Weathermax® HBR @ 100μm

## FURNACES - TO 600°C
Preparation: Ref AS1627.4, Sa 2½
1st coat: DULUX Hi Temp™ Uniprime @ 20μm
2nd coat: DULUX Hi Temp™ 600 @ 20μm
3rd coat: DULUX Hi Temp™ 600 @ 20μm

## GAS STORAGE TANKS - STEEL EXTERNALS
Preparation: Ref AS1627.4, Sa 2½
1st coat: DULUX Zincanode® 402 @ 75μm
2nd coat: DULUX Duremax® GPE @ 125μm
3rd coat: DULUX Weathermax® HBR @ 100μm

## HEAT EXCHANGERS
Preparation: Ref AS1627.4, Sa 2½
1st coat: DULUX Zincanode® 402 @ 75μm
2nd coat: DULUX Duremax® GPE @ 125μm
3rd coat: DULUX Weathermax® HBR @ 100μm

## JETTY AND WHARF - PILINGS - STEEL
Preparation: Ref AS1627.4, Sa 3 (75-100μm profile)
1st coat: DULUX Luxepoxy® UHB @ 3,000μm

## JETTY AND WHARF - PILINGS - CONCRETE
Preparation: Degrease and grit blast
1st coat: DULUX Luxepoxy® UHB @ 500μm
2nd coat: DULUX Luxepoxy® UHB @ 2,000μm
**JETTY AND WHARF – STEEL ABOVE WATERLINE**

Preparation: Ref AS1627.4, Sa 2½

1st coat DULUX Zincanode® 402 @ 75μm
2nd coat DULUX Duremax® GPE @ 125μm
3rd coat DULUX Weathermax® HBR @ 100μm

**PIPE EXTERNALS AND PIPE SPOOLS**

Preparation: Ref AS1627.4, Sa 2½

1st coat DULUX Zincanode® 402 @ 75μm
2nd coat DULUX Duremax® GPE @ 125μm
3rd coat DULUX Weathermax® HBR @ 100μm

**PIPE RACKS**

Preparation: Ref AS1627.4, Sa 2½

1st coat DULUX Zincanode® 402 @ 75μm
2nd coat DULUX Duremax® GPE @ 125μm
3rd coat DULUX Weathermax® HBR @ 100μm

**POTABLE WATER TANKS – STEEL INTERNALS**

Preparation: Ref AS1627.4, Sa 3

1st coat DULUX Durebild® TLE @ 125μm
2nd coat DULUX Durebild® TLE @ 125μm

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**PROCESS VESSELS – STEEL EXTERNALS**

Preparation: Ref AS1627.4, Sa 2½

1st coat DULUX Zincanode® 402 @ 75μm
2nd coat DULUX Duremax® GPE @ 125μm
3rd coat DULUX Weathermax® HBR @ 100μm

**PRODUCT STORAGE TANKS – STEEL EXTERNALS**

Preparation: Ref AS1627.4, Sa 2½

1st coat DULUX Zincanode® 402 @ 75μm
2nd coat DULUX Duremax® GPE @ 125μm
3rd coat DULUX Weathermax® HBR @ 100μm

**PUMPS AND COMPRESSORS**

Preparation: Ref AS1627.4, Sa 2½

1st coat DULUX Zincanode® 402 @ 75μm
2nd coat DULUX Duremax® GPE @ 125μm
3rd coat DULUX Weathermax® HBR @ 100μm

**ROADWAYS - SAFETY MARKING**

Preparation: Clean to remove contaminants

1st coat DULUX Roadmaster® WB2 @ 230μm

**WALKWAYS – INTERIOR CONCRETE, ANTI SLIP**

Preparation: Diamond grind

1st coat DULUX Luxafloor® LGE @ 125μm
2nd coat DULUX Luxafloor® LGE @ 125μm
Slip resistance DULUX Luxafloor® Broadcast No 36 Aggregate
3rd coat DULUX Luxafloor® LGE @ 125μm

**WALKWAYS AND STEPS – INTERIOR STEEL**

Preparation: Ref AS1627.4, Sa 2½

1st coat DULUX Zincanode® 402 @ 75μm
2nd coat DULUX Duremax® GPE @ 125μm
3rd coat DULUX Luxafloor® PTX @ 100μm

**WALKWAYS AND STEPS – EXTERIOR CONCRETE**

Preparation: Diamond grind

1st coat DULUX Luxafloor® LGE @ 125μm
2nd coat DULUX Luxafloor® LGE @ 125μm
3rd coat DULUX Luxafloor® PTX @ 100μm

**WALKWAYS AND STEPS – EXTERIOR STEEL**

Preparation: Ref AS1627.4, Sa 2½

1st coat DULUX Zincanode® 402 @ 75μm
2nd coat DULUX Duremax® GPE @ 125μm
3rd coat DULUX Luxafloor® PTX @ 100μm

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**COLOUR CODING**

**PIPELINE IDENTIFICATION COLOURS**


<table>
<thead>
<tr>
<th>Substance</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>G21 Jade</td>
</tr>
<tr>
<td>Steam</td>
<td>N24 Silver Grey</td>
</tr>
<tr>
<td>Oils, flammable liquids</td>
<td>X53 Golden Tan</td>
</tr>
<tr>
<td>Gases</td>
<td>Y44 Sand</td>
</tr>
<tr>
<td>Acids &amp; alkalis</td>
<td>P23 Lilac</td>
</tr>
<tr>
<td>Air</td>
<td>B25 Aqua</td>
</tr>
<tr>
<td>Other Liquids</td>
<td>N61 Black</td>
</tr>
<tr>
<td>Fire Services</td>
<td>R13 Signal Red</td>
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<tr>
<td>Electric Power</td>
<td>X15 Orange</td>
</tr>
<tr>
<td>Communication</td>
<td>N14 White</td>
</tr>
<tr>
<td>Dangerous Materials</td>
<td>Y14 White</td>
</tr>
<tr>
<td>Fresh water &amp; Foodstuffs</td>
<td>B24 Harbour Blue</td>
</tr>
</tbody>
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Protecting Australasia’s assets. 5
# OUR COATING SYSTEMS GUIDE FOR OIL & GAS – OFF SHORE

## CRUDE STORAGE TANKS – STEEL EXTERNALS
Preparation: Ref AS1627.4, Sa 2 ½
- 1st coat DULUX Zincanode® 402 @ 75μm
- 2nd coat DULUX Duremax® GPE @ 125μm
- 3rd coat DULUX Weathermax® HBR @ 100μm

## CRUDE STORAGE TANKS – STEEL INTERNAL LININGS
Preparation: Ref AS1627.4, Sa 3
- 1st coat DULUX Durekem® MPP @ 150μm
- 2nd coat DULUX Durekem® MPP @ 150μm

## DECKS – ANTI SLIP
Preparation: Ref AS1627.4, Sa 3 (75-100 μm profile)
- 1st coat DULUX Luxepoxy® UHB @ 2,000μm
- 2nd coat DULUX Luxafloor® PTX @ 100μm

## DIESEL TANKS
Preparation: Ref AS1627.4, Sa 3
- 1st coat DULUX Durekem® MPP @ 150μm
- 2nd coat DULUX Durekem® MPP @ 150μm

## FLARE BOOM
Preparation: Ref AS1627.4, Sa 2 ½
- 1st coat DULUX Zincanode® 402 @ 75μm
- 2nd coat DULUX Duremax® GFX @ 250μm
- 3rd coat DULUX Weathermax® HBR @ 100μm

## HELI DECK – ANTI SLIP
Preparation: Ref AS1627.4, Sa 3 (75-100 μm profile)
- 1st coat DULUX Luxepoxy® UHB @ 2,000μm
- 2nd coat DULUX Luxafloor® PTX @ 100μm
- 3rd coat DULUX Luxafloor® PTX @ 100μm

## HELI DECK SUPPORTS
Preparation: Ref AS1627.4, Sa 2 ½
- 1st coat DULUX Zincanode® 402 @ 75μm
- 2nd coat DULUX Duremax® GFX @ 250μm
- 3rd coat DULUX Weathermax® HBR @ 100μm

## JACKETS
Preparation: Ref AS1627.4, Sa 3 (75-100 μm profile)
- 1st coat DULUX Zincanode® 402 @ 75μm
- 2nd coat DULUX Luxepoxy® UHB @ 3,000μm

## LIVING QUARTERS INTERIOR
Preparation: Ref AS1627.4, Sa 2 ½
- 1st coat DULUX Zincanode® 402 @ 75μm
- 2nd coat DULUX Duremax® GPE @ 125μm
- 3rd coat DULUX Weathermax® HBR @ 100μm

## LIVING QUARTERS EXTERIOR
Preparation: Ref AS1627.4, Sa 2 ½
- 1st coat DULUX Zincanode® 402 @ 75μm
- 2nd coat DULUX Duremax® GFX @ 250μm
- 3rd coat DULUX Weathermax® HBR @ 100μm

## POTABLE WATER TANKS – STEEL INTERNALS
Preparation: Ref AS1627.4, Sa 3
- 1st coat DULUX Durebild® TLE @ 125μm
- 2nd coat DULUX Durebild® TLE @ 125μm

## RISERS
Preparation: Ref AS1627.4, Sa 3 (75-100 μm profile)
- 1st coat DULUX Zincanode® 402 @ 75μm
- 2nd coat DULUX Luxepoxy® UHB @ 3,000μm

## STEELWORK GENERALLY
Preparation: Ref AS1627.4, Sa 3 (75-100 μm profile)
- 1st coat DULUX Zincanode® 402 @ 75μm
- 2nd coat DULUX Duremax® GFX @ 250μm
- 3rd coat DULUX Weathermax® HBR @ 100μm

## WALKWAYS AND STEPS – EXTERIOR STEEL
Preparation: Ref AS1627.4, Sa 2 ½
- 1st coat DULUX Zincanode® 402 @ 75μm
- 2nd coat DULUX Duremax® GFX @ 250μm
- 3rd coat DULUX Luxafloor® PTX @ 100μm
- 4th coat DULUX Luxafloor® PTX @ 100μm
OUR PRODUCTS

The list below is a summary of the protective coatings products included in our Coating Systems specifications in this publication.

The number of products in this guide has been kept to a minimum for simplicity, practicality, and cost effectiveness. Your Dulux Protective Coatings Representative may suggest and/or specify many other products within our range for your particular coating needs.

<table>
<thead>
<tr>
<th>PRIMERS</th>
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<tbody>
<tr>
<td><strong>PRODUCT</strong></td>
</tr>
<tr>
<td>DULUX Durepon® EZP</td>
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<tr>
<td>DULUX Luxepoxy® Sealer</td>
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<tr>
<td>DULUX Hi Temp™ Uniprime</td>
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<tr>
<td>DULUX Durezinc™ i90</td>
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<tr>
<td>DULUX Zincanode® 402</td>
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<table>
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<tr>
<th>INTERMEDIATES</th>
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<tbody>
<tr>
<td><strong>PRODUCT</strong></td>
</tr>
<tr>
<td>DULUX Durebild® STE</td>
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<tr>
<td>DULUX Durekem® MPP</td>
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<tr>
<td>DULUX Duremax® GFX</td>
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<td>DULUX Duremax® GPE</td>
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<tr>
<th>TOPCOATS</th>
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<tbody>
<tr>
<td><strong>PRODUCT</strong></td>
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<tr>
<td>DULUX Durebild® TLE</td>
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<tr>
<td>DULUX Flexituff®</td>
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<tr>
<td>DULUX Hi Temp™ 400</td>
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<tr>
<td>DULUX Hi Temp™ 600</td>
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<tr>
<td>DULUX Luxepoxy® UHB</td>
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<tr>
<td>DULUX Roadmaster® WB2</td>
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<tr>
<td>DULUX Weathermax® HBR</td>
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<tr>
<th>CONCRETE FLOORING</th>
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<tbody>
<tr>
<td><strong>PRODUCT</strong></td>
</tr>
<tr>
<td>DULUX Luxafloor® LGE</td>
</tr>
<tr>
<td>DULUX Luxafloor® PTX</td>
</tr>
</tbody>
</table>

The coating systems in this brochure can be used for both new work and maintenance, however the surface preparation clauses assume that the substrate in each case is new and unpainted.

For a comprehensive list of all our products, please visit our website at www.duluxprotectivecoatings.com.au.

BEFORE YOU START!

SURFACE PREPARATION

Thorough surface preparation is crucial to the performance of a coating system. Make sure your applicator has all the right equipment to remove and contain all rust, deteriorated coatings and residues from all surface to be painted. Such equipment may include, but is not limited to: spot abrasive blasters (wet or dry), Bristle Blasters® (registered trademark of MONTI-Werkzeuge GmbH), ultra high pressure water jets, and power sanders.

Do not allow the use of rust converters and other chemical treatments, (refer to Standards Australia AS2312.1:2014 Section 4.5 for more information) as they generally fail in their claims to provide a sound substrate for new coating systems to adhere to. The use of rust converters will void any warranty that may have been in place beforehand.

COATING SPECIFICATIONS

Your coating specifications should be quite specific with regard to surface preparation method, product name and minimum dry film thickness of each coat. Using your Dulux Protective Coating Representative’s coating specifications will assist you to achieve the following outcomes:

1. Fairer tenders – this creates a level playing field for your contractors, as their tenders must conform to your specifications.
2. Easier choice of contractor – when all tenderers are pricing the job based on the same set of specifications, your selection process becomes simpler.
3. More control over what you get – your Dulux Representative can work with your contractor to ensure that the correct products are supplied, and in sufficient quantity, to do the job properly.
4. On-site support – Your Dulux Representative offers ongoing assistance to you and your maintenance crew.
5. A durable asset protection system that will be aesthetically pleasing, functional and easy to maintain.

Contact your local Dulux Protective Coatings Representative today for an obligation-free visit to your plant or factory for comprehensive surface preparation and coating specifications or detailed maintenance schedules to protect your assets.

Protecting Australasia’s assets.
CONTACT US
For a completely obligation-free consultation, please do not hesitate to contact us.

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