WHY PAINT A CONCRETE FLOOR?

The high compressive strength and durability makes concrete an excellent flooring material in residential and commercial environments. However, unpainted concrete does have some issues that can be overcome by the application of a high quality protective coating.

» Rectify defects and improve aesthetics
Concrete may have stains and marks from curing compounds, form oils and release agents. Defects such as blowholes, rust stains, honeycombing and impact damage also affect the aesthetics.

» Prevent Spalling
Spalling is the result of deterioration/corrosion of steel within steel reinforced concrete and is characterised by the appearance of cracks and rust. Painting concrete will produce a barrier to moisture, carbon dioxide and salts that are all required for spalling to occur.

» Resist Chemical Attack
Concrete is susceptible to chemical attack. Not only do acids readily eat into concrete but other seemingly benign chemicals, such as sugar, can react with concrete and break down its integrity.

» Increase Safety
The application of a smooth, light-coloured floor coating increases the light reflectance value of the floor, improving visibility. Paint in various colours can be used to demarcate certain areas or zones (i.e. pedestrian walkways within a warehouse).

» Easier to clean and maintain
The natural porosity of even well-cured “high strength” concrete allows the absorption of liquids and adhesion of stains. Suitable floor coatings seal the porous surface, reducing the ingress of liquids and create a smooth, easier to clean floor.

AREAS OF USE

The Luxafloor® range of products are ideal for use in office areas, car parks, warehouses, manufacturing facilities, workshops, commercial garage floors, laboratories, retail areas and showrooms.

This product guide is designed to aid the selection of the right product from the Luxafloor® range for your application and provide important advice on surface preparation and application so that the desired outcome is achieved.
LUXAFLOOR® ACS (formerly Dureseal ACS)
Luxafloor® ACS is a clear solvent based acrylic concrete sealer that is designed to resist the penetration of oils and other liquids into concrete to produce a dustproof and more easily cleaned surface.

» Suitable for interior and exterior use
» UV resistant, non yellowing acrylic concrete sealer
» Single pack, easy to apply
» Excellent penetration, ideal for dust proof

Typical applications include warehouses, garages, workshops, car parks and concrete driveways.

LUXAFLOOR® CP
Luxafloor® CP is a high performance, moisture curing, non-yellowing, clear urethane finish for brush or roller application.

» Suitable for interior and exterior use
» Medium build, non-yellowing, clear polyurethane finish
» Gloss and low sheen finish available
» Single pack, easy to apply
» Brush and roller application

Typical applications include shop floors, paths, showrooms, cafes and other areas where a polished concrete look is desired.

LUXAFLOOR® ECO2
Luxafloor® ECO2 is a low build, waterborne, quick drying two pack epoxy floor coating. It is ideal for use in areas subject to foot traffic.

» Suitable for interior use. On exterior exposure some chalking will occur
» Excellent flow out to a semi-gloss finish
» Quick drying, low odour and low VOC (<10 g/L)
» Available in a limited range of colours*
» Not recommended for use on car park / garage floors
» Brush, roller and spray application

Typical applications include internal walls, floors and pathways in showrooms, retail stores, schools, light industrial and food processing areas subjected to pedestrian traffic.

LUXAFLOOR® WB
Luxafloor® WB is a low build, waterborne, two pack epoxy floor coating that provides a hardwearing, glossy surface. It is ideal for use in areas subject to foot and rubber-tyred vehicle traffic.

» Suitable for interior use. On exterior exposure chalking will occur
» Excellent flow out to a gloss finish
» Low odour and low VOC (<10 g/L)
» Good chemical resistance
» Available in a limited range of colours*
» Waterborne system recommended for car park / garages
» Brush, roller and spray application

Typical applications include internal walls and floors in warehouses, garages, schools, light industrial and food processing areas, kitchens and other areas subjected to pedestrian traffic and light vehicle traffic.

*For more information around colour availability, please contact your Dulux® Protective Coatings Consultant.
## PRODUCT SELECTOR

### What do you want to do?

<table>
<thead>
<tr>
<th>Seal a concrete floor</th>
<th>Clear coat a concrete floor</th>
<th>Paint a concrete floor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you going to drive a vehicle on the coated floor?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Interior or Exterior?</td>
<td>Interior/Exterior</td>
<td>Interior</td>
</tr>
<tr>
<td>Waterborne or solvent based system?</td>
<td>Solvent based</td>
<td>Waterborne</td>
</tr>
<tr>
<td>Non yellowing?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Sheen level</td>
<td>N/A</td>
<td>Semi Gloss</td>
</tr>
<tr>
<td>Product</td>
<td>Luxafloor® ACS</td>
<td>Luxafloor® ECO2, Clearcoat</td>
</tr>
<tr>
<td>DuSpec Specifications</td>
<td>AUSI 1574 N</td>
<td>AUSI 3030 N</td>
</tr>
<tr>
<td>- New/Unpainted</td>
<td>AUSI 3031 N</td>
<td>AUSI 3169 F</td>
</tr>
<tr>
<td>- Previously Painted</td>
<td>AUSI 1574 N</td>
<td>AUSI 3030 N</td>
</tr>
</tbody>
</table>

N - No Aggregate  
F - Stir in fine aggregate  
C - Stir in coarse aggregate  
B - Broadcast No.36 aggregate

**Note:** This document is a guide only, please refer to the relevant Dulux® product data sheets and DuSpec specifications for more detailed information before any work is carried out. For more technical advice, please contact the Dulux® Protective Coatings Consultant in your state.

* Slip ratings recorded have been obtained via the oil-wet inclining platform slip resistance. For additional slip ratings on these and other systems please refer to the Product Data Sheet.
LUXAFLOOR® ROLLCOAT

Luxafloor® Rollcoat is a high build, high solids, two pack epoxy floor coating that provides a hardwearing surface. It is ideal for use in areas subject to foot and rubber-tyred vehicle traffic.

» Suitable for interior use. On exterior exposure some chalking will occur
» High solids, high build
» Excellent flow out to a high gloss finish
» Excellent adhesion to concrete
» Creates an easy to clean hardwearing surface
» Good chemical resistance
» Available in a limited range of colours*
» Brush, roller and spray application

Typical applications include internal floors of plant rooms, factories, warehouses, schools, laboratory, processing plants and other industrial applications.

LUXAFLOOR® LGE

Luxafloor® LGE is a high solids, low gloss epoxy floor coating with excellent durability and chemical resistance.

» Suitable for interior use. Can be used on exterior surface if top coated with Luxafloor® PTX.
» High solids, high build
» Low gloss finish
» Excellent adhesion to prepared concrete floors
» Good chemical and abrasion resistance
» Brush, roller and spray application
» Available in a wide range of colours*

Typical applications include plant rooms, car parks, warehouses, schools, laboratory, processing plants and other industrial applications.

LUXAFLOOR® PTX

Luxafloor® PTX is a high performance, high build recoatable polyurethane floor coating designed for ease of use. Luxafloor® PTX exhibits excellent gloss and colour retention under high UV exposure.

» Polyurethane topcoat
» Gloss finish
» Very good gloss and colour retention
» Good chemical and abrasion resistance
» Available in a wide range of colours*
» Use Luxafloor® LGE to prime concrete before application of Luxafloor® PTX
» Brush, roller and spray application

Typical applications include internal and external floor areas of plant rooms, car parks, warehouses, schools, laboratory, processing plants and other industrial applications.

LUXAFLOOR® AGGREGATES

Luxafloor® Aggregates are slip resistant additives designed for use with the Dulux® Luxafloor® range.

» Slip resistant additive
» Add to selected Luxafloor® products to achieve slip resistant requirements for light traffic applications
» Easy to use

*For more information around colour availability, please contact your Dulux® Protective Coatings Consultant.
NEW or UNCOATED FLOOR
The correct surface preparation of concrete is critical to achieve a clean substrate and profile that will allow for good adhesion of the coating.

1. CHECK YOUR CONCRETE FLOOR
New concrete floors must be cured for a minimum of 28 days to ensure that the floor is close to maximum hardness.

If a wax based curing compound has been used, then coating of the concrete is not recommended as the wax prevents adhesion to the concrete. Complete removal of all traces of wax is difficult.

Do not commence work if temperature is below 10°C or above 40°C or within 3°C of dewpoint, or if the relative humidity is above 85%. Substrate should have a moisture content of less than 10%.

2. CLEAN SURFACE
Degrease with high-pressure water wash at 2,000 - 3,000 psi using a free-rinsing alkaline detergent such as Gamlen CA No. 1 in strict accordance with the manufacturer’s written instructions and all safety warnings. Rinse to remove all residues.

3. REPAIR SURFACE DEFECTS
Use an epoxy filling mortar such as Dulux Luxepoxy® Filler to fill any cracks, defects or blowholes in the concrete.

4. CREATE A SURFACE PROFILE
Choose one of the following as appropriate:

DIAMOND GRIND
Diamond grinders use horizontally rotating discs to clean, level and smooth the concrete surface. Most diamond grinders have full vacuum extraction that will significantly reduce the level of dust produced by the grinding process.
Well-executed diamond grinding completely removes laitance and levels off imperfections on the concrete surface. This method produces a flat, smooth surface with a profile ideal for all floor coatings.
If the water soaks into the surface (absorbed) then this indicates that the floor is ready for coating.

As surface preparation is critical to the success of a flooring project, please discuss the specific needs of the project with a Dulux® Protective Coatings representative.
PREVIOUSLY COATED FLOORS

It is possible to coat a previously painted concrete floor if the suitability of this coating is check for overcoating and the surface is prepared according to the following steps.

### 1. CHECK YOUR CONCRETE FLOOR

The existing coating must be well adhered to the concrete substrate and in sound condition (no peeling, blistering etc...) to provide the new coating a good key onto the surface.

To check the adhesion of the existing coating, get a sharp knife and cut an “X” into the surface of the coating (about 3cm x 3cm). Apply sufficient pressure and/or do multiple passes to ensure penetration through the coating down to the substrate.

Press a piece of high quality tape onto the “X” ensuring that the tape is well adhered to the paint. Then pull off the tape at a 45-90° angle in one swift motion. If paint is removed onto the tape or is pulled up off the concrete then the existing coating does not have good adhesion to the concrete floor and must be completely removed before coating.

If no paint is removed then repeat the test on several locations across the floor. Only if the paint is found to have good adhesion in all locations proceed with coating.

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**Example of “X” cut into an existing coating.**

**If a proportion of the coating is removed with the adhesion test as per the image above, then the existing coating has poor adhesion to the substrate. Coating needs to be removed before painting.**

### 2. CLEAN SURFACE

Degrease the floor using a free-rinsing alkaline detergent such as Gamlen CA No. 1 in strict accordance with the manufacturer’s written instructions and all safety warnings. Rinse to remove all residues.

### 3. REPAIR SURFACE DEFECTS

Use an epoxy filling mortar such as Dulux® Luxepoxy® Filler to fill any cracks, defects or blowholes in the concrete. Spot prime any bare areas with your chosen floor coating.

### 4. CREATE A KEY INTO THE SURFACE

Mechanically grind the existing coating to remove any gloss and create a rough surface profile that will provide the new coating with a good key into the surface. Vacuum clean to remove all dust.

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**When coating over an existing coating it is not recommended to apply a polyurethane coating such as Luxafloor® PTX directly onto an old coating. To maximise adhesion apply one coat of an Luxafloor® LGE and then top coat with the polyurethane.**

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When the surface is ready for painting, apply the first coat of the floor coating system in strict accordance with the technical data sheet(s) without delay before the floor becomes re-contaminated. All surfaces must be clean and dry before coating.
For pigmented or coloured products ensure the bases have been tinted to the correct colour before use. When using two pack systems mix the contents of both packs individually until uniform and then combine with power mixing and allow to stand for the appropriate induction time (please refer to the product datasheet). Remix thoroughly before using.

When painting uncoated concrete thinning of the first coat to the recommended level (please refer to the product datasheet) is strongly encouraged. Uncoated concrete is very porous and will take in the coating rapidly. Thinning will ease application and help the coating penetrate into the surface.

**BRUSHING** is only used for small areas and to cut in around the edge of a floor. Prior to starting, moisten the brush in the appropriate thinner for the product. Ensure you remove excess liquid before painting. Concrete is very porous and the paint will soak into the substrate rapidly on the first coat. Therefore to minimise brush marks it is recommended that you work quickly to spread the paint along a given section with light, even strokes.

**ROLLER** application is the most common technique to apply coatings onto concrete floors. Apply even coats using a good quality short nap roller (9-12 mm) to the prepared surface. It is recommended that typical “X” and “Y” roller patterns are used, working in small areas of up to 10m² at a time, keeping a wet-edge moving forward. To minimise any unevenness due to overlapping it is recommended that at the end of each section, lightly roll the area in a consistent direction.

If **SPRAYING** is adopted for application please refer to the product datasheet for guidance on the correct equipment and settings. It is recommended that the wet sprayed coating is backed rolled. Back-rolling can help push the material into the pores of the surface, helps evens out the coating and allow for a consistent finish between the originally painted surface and any area that requires touching up (by roller) after the main application.

After the floor coating system has fully cured, fill movement joints with a closed-cell joint filler of a suitable size, and seal with Selleys® Proseries Sealant Multipurpose, a non-lumping polyurethane construction sealant. Refer to the manufacturer’s instructions and advice on joint treatment.
CREATING A NON SLIP FLOOR

WHAT LEVEL OF SLIP RESISTANCE DOES A FLOOR NEED TO MEET?


The slip resistance of a surface can be measured according to AS/NZS 4586 – Slip Resistance Classification of New Pedestrian Surface Materials. Luxafloor® coatings can achieve a slip resistance rating in accordance with this standard through the incorporation of specially designed aggregates (refer to Product Selector on page 3 & 4).

STIR IN AGGREGATE

Stir in aggregate is added to previously mixed and thinned paint using a power mixer. Once the aggregate is uniformly distributed throughout the paint, application can then occur.

Periodic mixing of the product is essential to aid distribution throughout the wet paint. The use of stir in aggregate may make it easier to achieve a more uniform distribution of aggregate throughout the coating compared to broadcasting aggregate.

Stir-in aggregates must only be used in the finish/top coat of the coating system. Any additional coats over the layer containing the aggregate will compromise the slip resistance of the coating.

BROADCAST AGGREGATE

The slip resistant aggregate is broadcast by hand onto the wet coat. When the base coat has cured, sweep up excess grit and then seal with a following, final coat. This sandwiches the aggregate between the two coats. DO NOT over-apply and bury the aggregate completely. Also any subsequent coats may compromise the slip resistance of the coating.

Due to the manual distribution of the broadcast aggregate it can be difficult to obtain a uniform result across the entire coating. It is important to practise broadcasting the aggregate evenly. The broadcasting technique allows the use of a coarser grade of aggregate and hence higher slip resistance ratings can be achieved.

Any advice, recommendation, information, assistance or service provided by DULUX Australia in relation to goods manufactured by it or their use and application is given in good faith and is believed by Dulux to be appropriate and reliable. However, any advice, recommendation, information, assistance or service provided by Dulux is provided without liability or responsibility PROVIDED THAT the foregoing shall not exclude, limit, restrict or modify the right entitlements and remedies conferred upon any person or the liabilities imposed upon Dulux by any condition or warranty implied by Commonwealth, State or Territory Act or ordinance void or prohibiting such exclusion limitation or modification. Products can be expected to perform as indicated on the products datasheet so long as applications and application procedures are as recommended.
Luxafloor® floor coatings are easy to apply and are equally suitable for new and refurbishment work. The range is particularly suited for the protection and decoration of concrete floors in plants, factories, warehouses, back of house areas and retail spaces.