Leeson Polyurethanes

Leeson Protective Coatings

The leading manufacturers
of polyurethane adhesives
and coatings

A bond for life

Leeson Protective Coatings: from Industrial to Commercial applications, we manufacture polyurethane protective coatings for all needs.

Established in 1986, Leeson Polyurethanes Ltd is the UK's leading manufacturer of Aliphatic and MDI based polyurethane one and two component coatings.

From flooring to tank lining, cladding to concrete, we are at the forefront of innovation in our sector, partnering with our customers to develop market leading solutions to their unique requirements.

COATINGS

We supply a wide range of coatings, including:

- Industrial flooring
- Polyurea coatings
- Tank lining
- Balcony systems
- Decorative coatings

Award Winning Products

It is with great pleasure that we can announce Leeson Polyurethanes Ltd has been awarded the Queen's Award for Enterprise in International Trade for 2019, the highest official UK export award for a British business.

This is in recognition for the exceptional growth in exports in recent years and gives global recognition that the company is outstanding in its field. Since winning the award for the first time in 2007, LPU have seen record sales and trade with new distributors in new countries including South Africa, Australia and New Zealand. We now export to 55 countries worldwide which makes up 25% of all Leeson Polyurethanes' sales and are set to rise further.

THE QUEEN'S AWARDS FOR ENTERPRISE: INTERNATIONAL TRADE 2019

The Queen's Awards for Enterprise were first established in 1966 and have long been the most prestigious business awards given out in the UK. There are certain criteria that the winning company has to achieve in order to be eligible for the award which can lead to further growth and international recognition. Representatives from Leeson Polyurethanes are invited to a reception at Buckingham Palace, but also the successful organisation can fly the Queen's Award flag and can use the Emblem on stationery, advertising and goods.

A bond for life

Leeson Polyurethanes are the leading innovators and manufacturers of Polyurethane Coatings, supplying worldwide.

We develop and manufacture an extensive range of formulated polyurethane products:

- Seamless Industrial Flooring
- Polyurethane Coatings
- Spray & Hand Applied Polyurea
- LeesonBound®
- LeesonGrip®
- Polyurethane Binders for Playgrounds & Sports Pitches
- Waterproofing Systems for Roofs & Balconies
- Decorative Coatings
- 1 & 2 component 100% Solvent Free Adhesives
- PUR Reactive Hot Melts
- Polyurethane Textile Adhesives

We work closely with our customers to deliver formulated polyurethanes of the highest quality.
Our products are tailored for our customer's precise requirements ensuring that they perform at their best.

The applications are infinite, from insulated panel production to textile and kitchen pad lamination, from sports pitches and playgrounds to high friction surfaces.

COATINGS

Our innovative Polyurea and Polyurethane Coatings are used in a wide range of applications.

We manufacture and market a leading range of polyurethane based coatings. They are used in a large array of applications,including polyurethane based seamless industrial flooring, tank lining products, balcony systems, decorative coatings and sealers. Our range of polyureas are used for waterproofing and protection of concrete and metal on large scale projects, as well as decorative bespoke and OEM applications.

Polyurethane Protective Coatings and Polyureas, used in flooring, tank lining and cladding, are fast curing, wear resistant and seamless in application. We manufacture coatings for both spray and roller applied.

Protective Coatings Overview

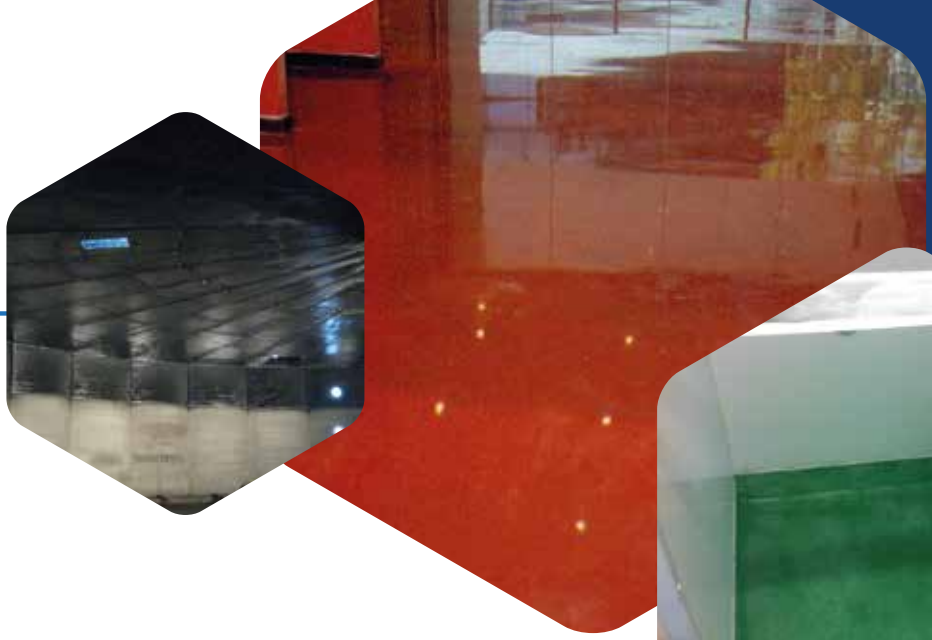
Fast curing, seamless, UV resistant polyurethane technology for excellent protection for floors, balconies, cladding and tanks.

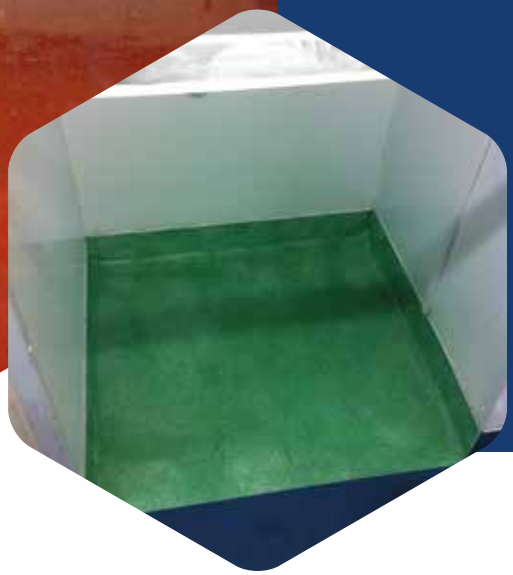
USES

- Industrial Floors
- Commercial Floors
- Car Parks
- Balconies
- Pvc Metal Cladding
- Water Storage Tanks

BENEFITS

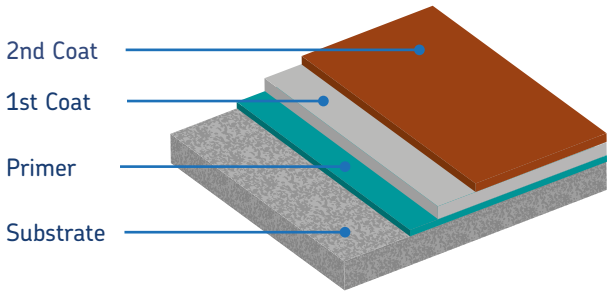
- Seamless - no joints to leak
- No embrittlement with age
- Fast curing
- Solvent Free

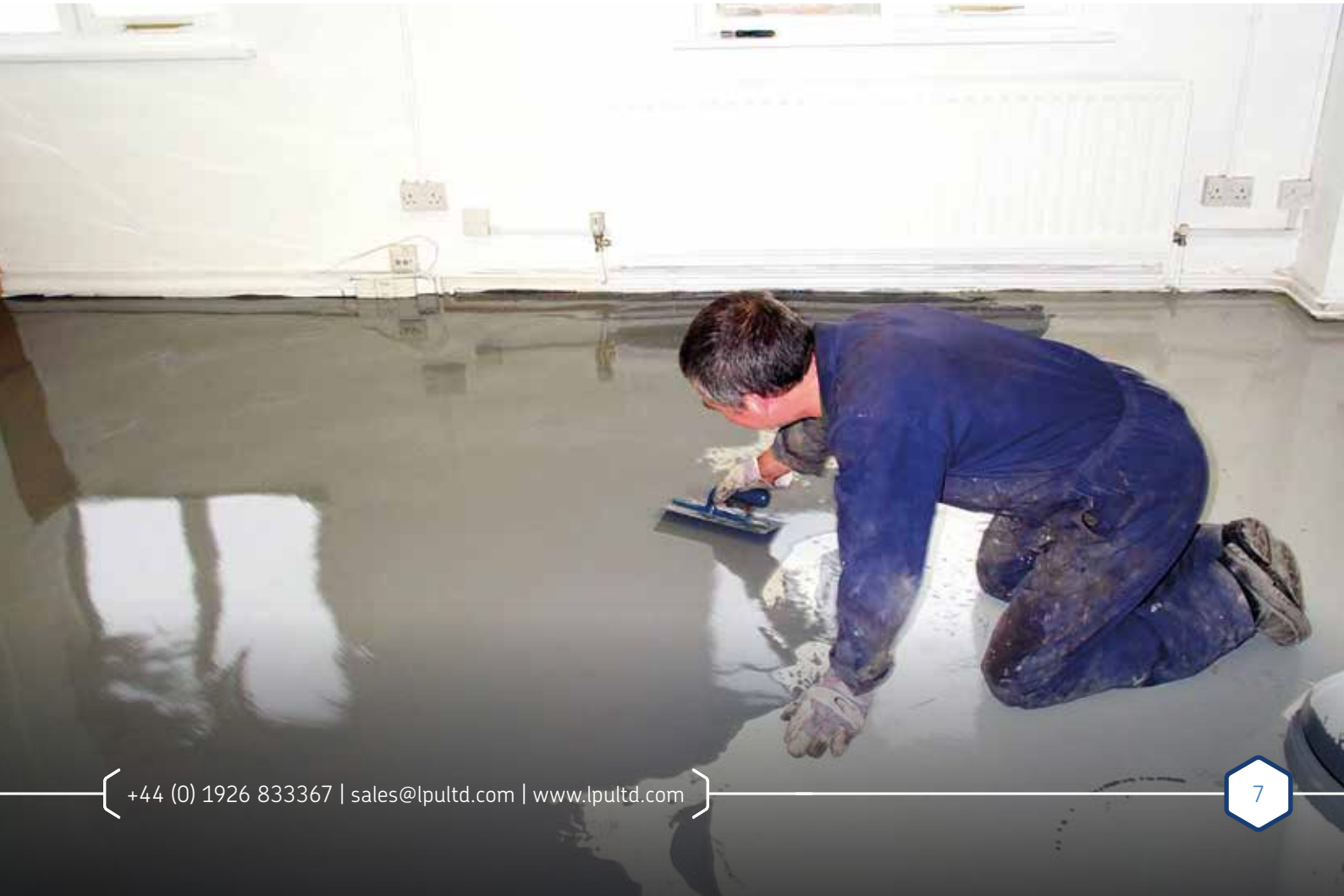




Technical Specification

- Excellent physical properties
- Resistant to temperatures of over 60˚C for long periods
- Resistance to various acids, diesels and petrol as well as strong bases
- Range of colours





PU Self Leveller PU4174

Smoothing resin for industrial and commercial flooring.

USES

- Warehouses
- Factories
- Food Preparation Areas
- Hospital
- Hygienic Areas

BENEFITS

- Wear resistant
- Attractive coloured finish
- Eliminates dust from concrete floors
- Steam clean resistant
- Fast curing

PU Sealer Int 1 PU4170

Non-hazardous, fast curing PU self-smoothing resin for industrial and commercial flooring.

USES

- Demarcation
- Car-parks
- Clean Rooms
- Hospitals
- Laboratories

BENEFITS

- Attractive appearance
- Provides sealing of floors
- Fast curing
- Chemical resistant

ReKote PU5036

UV resistant polyurethane coat based on 1 component moisture triggered technology. Available in a range of colours.

USES

- Renovation of PVC coated metal cladding

BENEFITS

- Fast curing
- UV stable
- Low viscosity and convenient working time
- Can be brush or spray applied

Aspartic PU Sealer Ext 12

UV resistant sealer coat based on polyaspartic technology. Available as a clear coat or pigmented.

USES

- Car-parks
- Demarcation
- Balconies
- Flooring

BENEFITS

- Fast curing
- Solvent free
- UV stable
- Low viscosity and convenient working time

Polyurea Pure and Hybrid

A range of fast setting, spray applied two component pure and hybrid polyurea coatings.

USES

- Concrete protection
- Waterproofing
- Balconies
- Scenography
- Secondary containment

BENEFITS

- Fast curing - 8-10 seconds
- Solvent free
- Excellent physical properties
- Seamless application
- Excellent abrasion resistance

Tank Lining PU4960

High build, elastomeric 2 component polyurethane coating system.

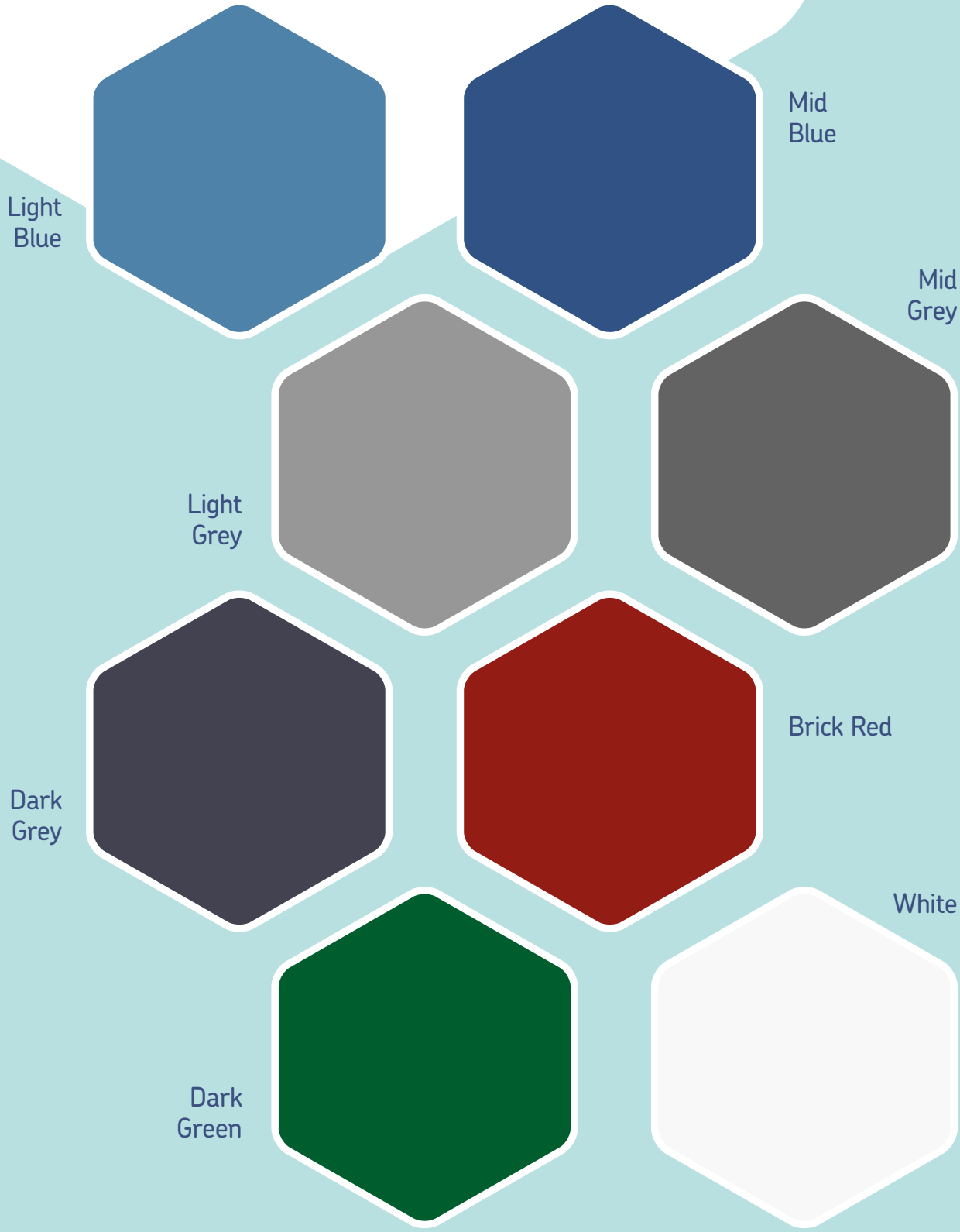
USES

- Renovation of water storage tanks
- Marine and underground applications

BENEFITS

- Fast curing
- Seamless application
- WRAS Approved 1405517
- Can be brush or spray applied
- Corrosion and chemical resistant

PU Coating Colour Range Examples



Self-Levelling Flooring System Installation Guide

Leeson Polyurethanes have been supplying flooring systems since the early 1990's and over that time the systems have demonstrated their quality, durability and ease of maintenance. When used as described in the installation guidance, the systems retain their integrity and have a service life typically in excess of 5 years. A maintenance guide is provided to keep the surfacing in optimum condition.

Explanation of the System Components

Leeson Con Prime-2 Description

Leeson Con Prime - 2 is a two component fast curing epoxy primer for concrete. It is coated with CH52 sand at 1kg/sqm. At 20oC it is typically tack free and ready for overcoating in 90 minutes. Any excess loose sand should be swept off prior to overcoating. Alternatively, PU3922 can be used at 0.15 kg/sqm. Con Prime-2 can be applied to concrete with a moisture content of up to 8% with 2 applications of conprime.

Leeson PU SL Floor Coating (PU4174) Description

Leeson PU SL Floor is a two component self-levelling polyurethane (non UV stable) designed for the coating of primed concrete surfaces.

Leeson Sealer Int-1 (PU4170) Description

Leeson Sealer Int-1 is a two component anti slip floor coating (non UV stable) designed to give an anti-slip surface when used in combination with a fine aggregate.

Please refer to our technical datasheet for the properties of above mentioned products.

Installation of the System

Preparation and Priming of Concrete Surfaces

Surface preparation and primer application is extremely important in the application of the system.

i. Temperature and RH during Primer Application

Application temperature 15°C-35°C, 15-18°C is optimum for ease of application.

Relative humidity should be between RH 30-85%.

Application of Leeson Con Prime -2

i. Application Equipment

Equipment should be protected from contamination from water, grease and oils. If the system is to be applied outside then protection against rain should be made.

Personal protective equipment should be worn as per the Health & Safety datasheet from Leeson Polyurethanes Ltd.

ii. Areas not to be coated

These areas should be protected with masking tape

iii. Before Using Leeson Con Prime – 2

Pre-mix the contents of the base (A component) with a drill and paddle.

iv. Application of Leeson Con Prime -2

Leeson Con Prime - 2 is best applied by squeegee, with a 6mm notched rubber blade. It can also be applied by roller.

v. Coverage of Leeson Con Prime – 2

Typically 250gsm

The final surface should appear smooth and free from foreign particles. The surface is then covered with CH52 sand at 1kg/sqm. After curing any loose excess should be removed.

vi. Operating Parameters for Primer

Relative humidity 30-85%, temperature 15-35°C

Application of Leeson PU SL Floor (PU4174)

i. Once cured the primed surface must be swept free of excess sand. It must be free of contamination and water prior to PU4174 application, as such wiping/drying may be required, if it has been exposed to moisture (this should be avoided if at all possible).

ii. For the optimum surface finish, the PU4174 is applied in two 1kg/m2 coats.

iii. The A component (resin) should be mixed using a slow speed, high torque helical blade mixer until uniform. Care should be taken to minimise the air introduced by mixing, using a slow speed mixer and submerging the blade entirely into the PU4174 will reduce air entrapment.

iv. PU4174B is then added and mixed thoroughly at slow speed for 2 minutes until uniform.

v. The PU4174 is then poured onto the primed substrate and spread using a squeegee or trowel technique to the thickness required (within specified range, see technical spec section). The mixture must be removed from the vessel within 10 minutes of hardener addition.

vi. PU4174 will then self-level in the area applied.

vii. If multiple containers of Polyurethane are to be used then to achieve a seamless join up between perpendicular polyurethane coatings they must be applied and spike rolled within 35 minutes of each other.

viii. Once the first coat of PU4174 is just tack cured, apply the second coat as before. This must be done before the 1st coat is cured to ensure a full chemical bond between the application layers. If this time is exceeded, the first coat should be mechanically abraded before application of the second layer, to ensure inter-coat adhesion.

Application of Leeson Sealer Int-1 (PU4170)

i. The surface must be free of contamination and water prior to PU4170 application, as such wiping/drying may be required, if it has been exposed to moisture (this should be avoided if at all possible).

ii. The resin should be mixed using a slow speed, high torque helical blade mixer until uniform.

iii. PU4170B is then added and mixed thoroughly at slow speed for 2 minutes until uniform.

iv. The PU4170 is then applied to the primed substrate and spread using a foam roller to the thickness required (within specified range, see technical spec section). The mixture must be removed from the vessel within 10 minutes of hardener addition.

v. A fine aggregate, such as Dynagrip 18 – 20 mesh, should then be scattered over the wet resin. Using a slightly wet roller the area should be back rolled to cover the aggregate.

vi. After laying allow PU4170 to cure.

Maintenance Schedule for PU Sealed Surfacing

Leeson Polyurethanes have been supplying flooring systems since the mid-1990s. Over that time the systems have demonstrated their quality, durability and ease of maintenance. With some simple routine procedures, the surfacing can be kept in optimum condition.

Periodic Cleaning

General cleaning of the surface can be carried out by steam cleaning to remove dirt and grime. Care should be taken in order to minimise damage caused by excessive heat.

Cement Contamination

If the surface is contaminated with any cement or concrete marks these can be removed using dilute hydrochloric acid or a proprietary cement remover. In all cases, we recommend that a small area is carried out first to confirm suitability.

Oil/Fuel Contamination

Oil stains should be removed as soon as possible by using a mild detergent as required to prevent possible staining and degradation of the surface. Apply a good quality detergent neat to the surface using a stiff brush. Allow to penetrate for 10 minutes then pressure wash from surface.

Spillages

Please note it is important that any spillages or contamination are dealt with promptly otherwise permanent staining, marking or physical damage to the surfacing and underlying materials may result.

Chewing Gum

Removal of individual pieces of chewing gum, can be achieved by treating each piece with a freezing spray and then scraping off the gum with a suitable scraper. For more extensive gum removal, contact a specialist-cleaning contractor.

Chemical Resistance

The surfacing is resistant to a wide range of chemicals, details are specified on the appropriate Technical Datasheet. The full chemical resistance builds up over time, and care should be taken within the first 7 days of installation to not expose the surface to chemicals.

Case Studies

The Metlife Building Car Park

Leeson's PU Sealer Int 1 was installed into the car park of The Metlife Building in midtown Manhattan, New York City. The construction of the 59 story building was completed in 1963 and is of the controversial Brutalist style of architecture. It is now the headquarters of the Metropolitan Life Insurance Company and has parking for 2000 cars. The grey sealer was applied onto the primed substrate using a roller before being scattered with a fine aggregate and the resin back rolled to cover the aggregate. The fast curing time of PU Sealer Int 1 ensured the area was back in use quickly and that its resistance to high temperatures, diesel and petrol makes it hard wearing.

Case Studies

Eventus, Market Deeping

PU4174 Quartz flooring with aspartic sealer was installed into the entrance area of the Eventus Business Centre in Market Deeping over the underfloor heating. The area was primed before laying the PU4174, then quartz flake was broadcast on to it with a final clear coat of aspartic sealer. The result was a stunning hard wearing floor in a high traffic area welcoming visitors to the site.

Jump In, Warwick

A former factory unit in Warwick was revitalised into a trampoline park. The redevelopment of 339m^2 included the installation of Leeson Self Levelling flooring in CM3 light grey to give a base to the equipment and café area. The unit now contains over 60 interlinking trampolines plus dodgeball courts, foam pits and climbing wall and attracts visitors from far and wide.

Case Studies

Laboratory Floor

Aspartic PU Sealer Ext 12 was the choice for a laboratory floor in the Midlands. It was chosen for its fast curing and solvent free properties plus it has low viscosity. It is based on aliphatic polyurethane technology to give enhanced UV performance whilst maintaining hardness.
The top coat will help to hide scratches and buffs, give added chemical resistance and limits the damage caused by UV lights to keep it looking bright and clean for longer.

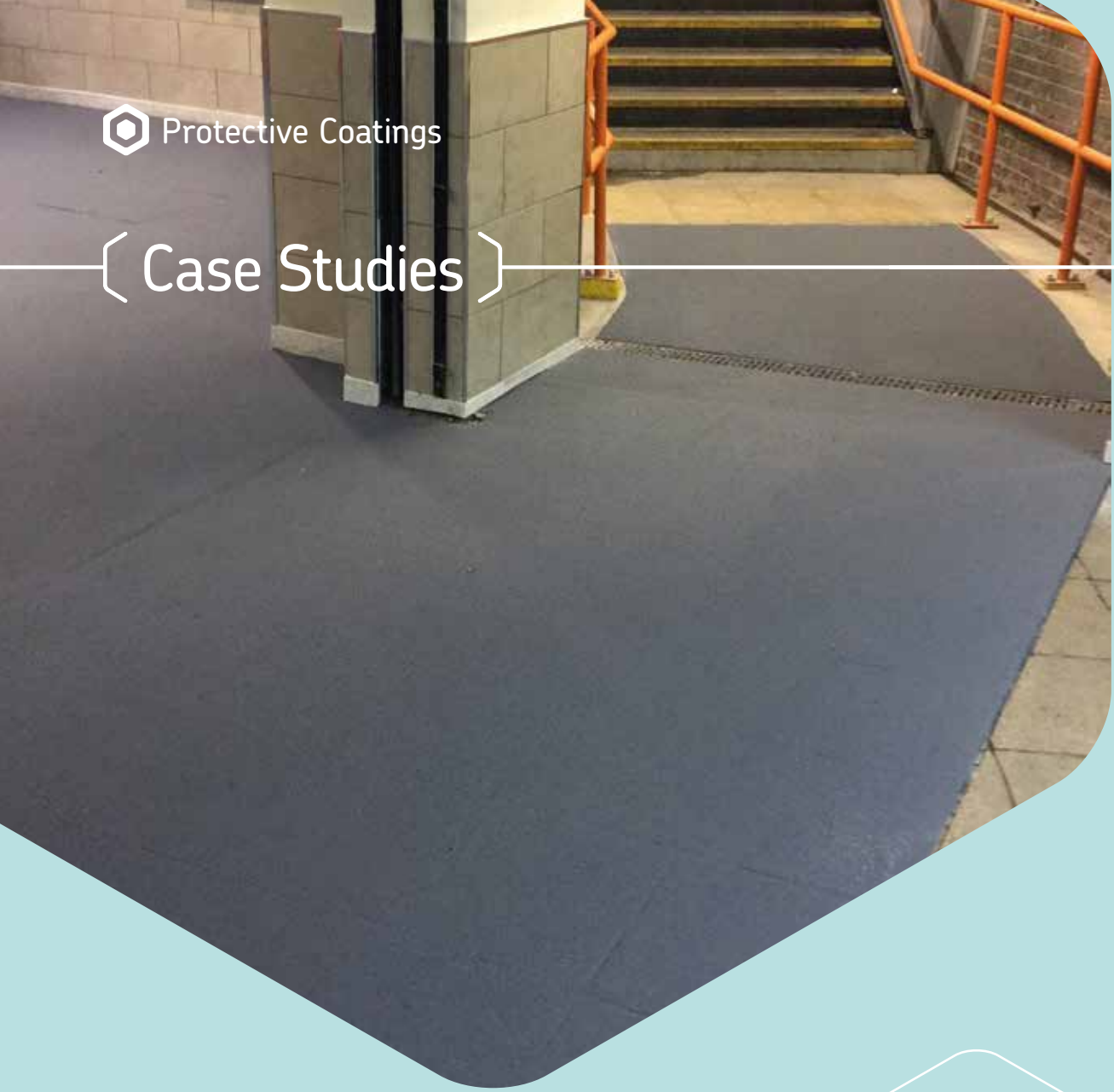
PU4174 Self Leveller Industrial Flooring

Leeson's PU Self Leveller for Floors was installed in a blue colour into industrial premises in Southampton. The self smoothing resin was chosen for its wear and steam clean resistance. The 1264m^2 floor was cleaned and primed before 2 coats of PU4174 were applied and spread using a trowel. To achieve a seamless join up, a spike roller was used between applications which also ensured all the air was released. The product eliminated dust from concrete floors giving a high gloss attractive finish.

Did you know?

The talented team at Leeson Polyurethanes can manufacture bespoke PU products to perfectly suit your requirements. Whether you require a liquid adhesive, PU Coating or a product made especially for your industry: Leeson Polyurethanes can produce it.

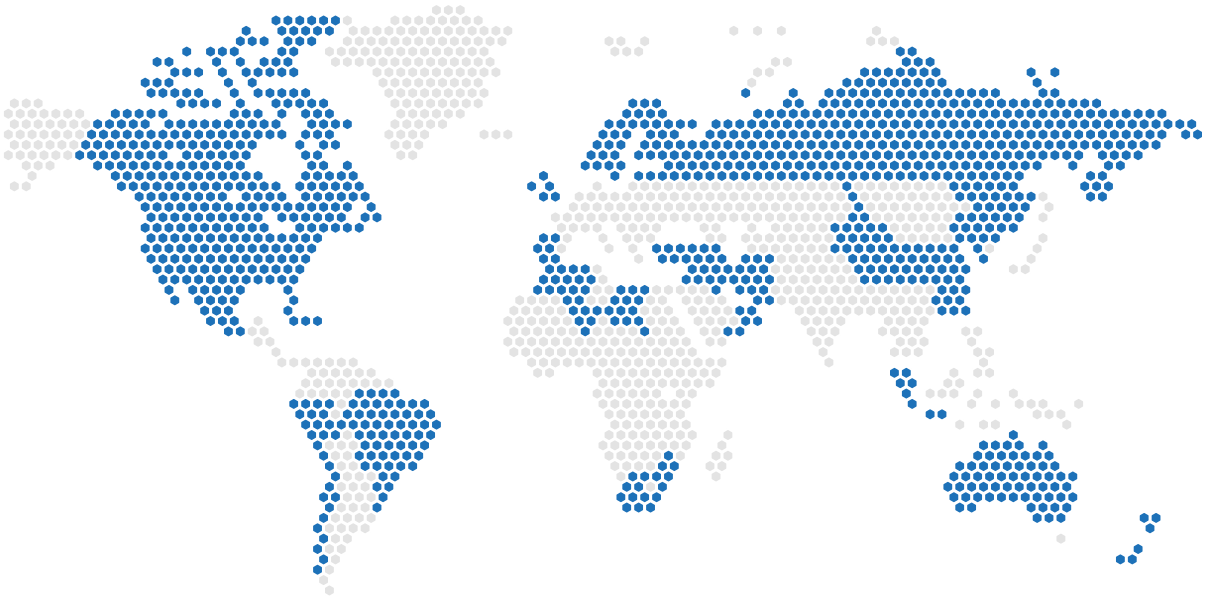
Case Studies



Clapham Junction

Clapham Junction underwent an upgrade and part of the improvements to the main interchange included spraying Leeson's Polyurea over the flooring area as a protective coating in a high trafficked area. A product with a high abrasion resistance was needed as the station is the busiest in Europe having between 100 and 180 trains per hour during the day. It is waterproof and non slippy, has a quick cure time and sound dampening properties which makes it the perfect product to cope with the thousands of commuters that pass through every day.

Worldwide Distribution



Leeson Polyurethanes export over 25% of our manufacturing output to over 56 countries.

In 2007 and 2019, in recognition of this achievement we were awarded the Queen's Award for Exports. Since then we have continued to promote British manufacturing around the globe.

Across the countries we operate in we have an extensive network of distributors and agents, as well as exporting directly from our UK base. Our polyurethane products have been exposed to many extremes of climate globally, as well as being used in a diverse range of industries. International customers can be assured of the rigorous testing our products are subjected to, ensuring that they perform exactly as specified regardless of geographical location.

How to Order

To find out more about our products, please call sales on:

+(0) 1926 833367

or email:

sales@lpultd.com

Sales / General Enquiry:

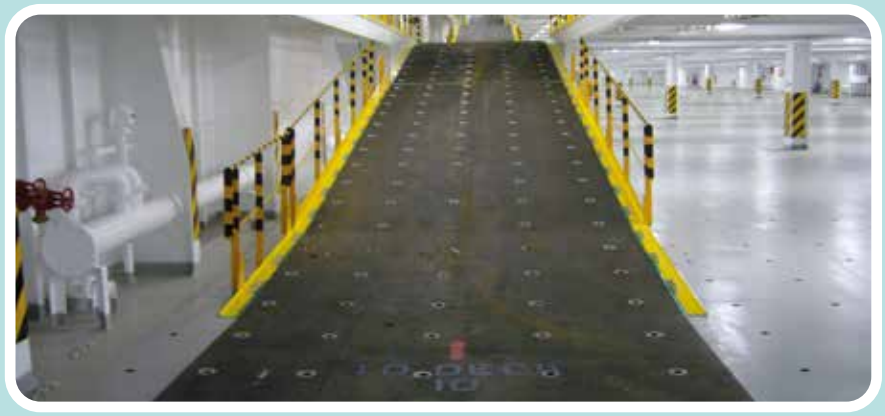
sales@lpultd.com

For all worldwide export enquiries please email:

sales@lpultd.com

Visit lpultd.com to view our full product range

Award Winning Products



LeesonBound®

Non hazardous, fast curing, flexible solvent free resin for encapsulation of decorative aggregates. Systems cures to give attractive, durable finish.

USES

- SUDS Areas
- Driveways
- Paths
- Swimming Pool Surrounds

LeesonGrip®

A high performance, flexible polyurethane based anti-skid system for industrial, decorative an functional applications onto asphalt and concrete substrates.

Leeson Grip 2-1

The system gives a hard wearing ant-skid surface approved for all Type 1 Roads by the BBA.

Leeson Grip 3-1 VHB

The system gives a hard wearing anti-skid surface for industrial applications.

USES

- Type 1 Roads
- Cycle Paths
- Pedestrian Areas
- Walkways
- Drives
- Pathways

Adhesives

A broad range of solvent free polyurethane adhesives for structural bonding. Both 1 component moisture cure and 2 component polyurethane adhesives are available for application by roller, bead machine, hand spray and automatic spray.

USES

- Caravan panels
- Mineral wool building panels
- Insulated truck panels
- SIP panels
- Modular (off site) buildings
- D4 wood bonding adhesive
- Architectural honeycomb panels

Rubber Crumb

Non-hazardous, fast curing, flexible, solvent free resin for bonding rubber crumb particles.

USES

- “Wet Pour” safety surfaces
- Children’s play areas
- Splash zones

Watertite

A seamless roofing system based on moisture triggered polyurethane technology. The system consists of a chopped strand reinforced base layer, sealed with a finish coat.

USES

- Roofs
- Balconies
- Water towers

THE QUEEN'S AWARDS FOR ENTERPRISE: INTERNATIONAL TRADE 2019

Leeson Polyurethanes Ltd.

Hermes Close, Warwick, CV34 6RP, UK.

Tel: +44 (0) 1926 833367 Fax: +44 (0) 1926 881469

sales@lpultd.com | www.lpultd.com

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