

## LeesonBound® and LeesonGrip®



The leading manufacturers  
of polyurethane adhesives  
and coatings

{ A bond for life }

## LeesonBound® and LeesonGrip®: from decorative driveways to high friction roads, we manufacture polyurethane coatings for all flooring 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 porous stone carpets to textile and kitchen pad lamination, from sports pitches and playgrounds to high friction surfaces. 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:

- Stonebinders
- Anti-Skid coatings
- Polyurea coatings
- Polyurethane rubber binders
- Waterproofing



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 in 2019/2020.

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 to 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.

## Award Winning Products



### WHY USE BBA APPROVED PRODUCTS?

The BBA is an independent non-profit organisation that rigorously tests, inspects and certifies products and systems to give the construction industry the confidence that they are buying quality. They are an international authority on approved products in the construction industry. They have hundreds of specialists who work across product approval, inspection and test areas delivering accredited certification and data that manufacturers, suppliers and members of the public can rely on. They encourage the safe development and adoption of innovative construction solutions and employ specialists with a wealth of technical knowledge and experience who sit on numerous committees and steering groups to provide input on the issues facing the industries.



## { 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:

- |   |   |                              |   |
|---|---|------------------------------|---|
| LeesonBound®  | Spray & Hand Applied Polyurea               | Polyurethane Coatings        | 1 & 2 component 100% Solvent Free Adhesives |
| LeesonGrip®   |   | Decorative Coatings          |   |
| Polyurethane Binders for Playgrounds & Sports Pitches | Waterproofing Systems for Roofs & Balconies | Seamless Industrial Flooring | 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 a market leading range of polyurethane and polyurea based coatings. They are used in a large array of applications, including liquid applied waterproofing (Watertite), polyurethanes for stonebinders (both UV and non UV resistant grades), anti-skid coatings for roads, bridges, and marine, polyurethanes for industrial flooring and decorative applications. Our range of polyureas are used for waterproofing and protection of concrete and metal on large scale projects. Furthermore we are continually developing our coatings to meet the requirements of our customers.



Rubber Crumb Polyurethane Binders used in sports pitches and playgrounds give excellent tensile and elongation properties and include grades to conform to BS7188:1998 and EN 14877:2006 ; as well as resistance to extremes of temperature. We manufacture binders for both pour-in-place and tile production, with grades suitable for both hand and machine installation.



# LeesonBound® Product Overview

## Performance Under Pressure

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



High Strength



With or Without UV Stabilisation



High Temperature Resistance



Fast Curing



Chemical Resistant

## USES

- SUDS areas
- Driveways
- Paths
- Swimming pool surrounds

## BENEFITS

- High strength system
- Porous / SUDS compliant
- Range of approved aggregate blends
- Excellent Track Record
- UV and non UV stabilized versions available

## Technical Specification

- Porous, seamless system
- Strong, flexible system
- UV resistant grade
- Resistant to temperatures over 70°C for long periods
- Resistant to acids, diesel, petrol as well as strong bases

PU-UVR / Stone Matrix

Primer

Substrate

## LeesonBound® BBA Approval

The latest system to gain its BBA approval is LeesonBound® Stone Binder system.

The stringent testing of its strength and stability confirms that it is **the strongest UV stable stonebound surfacing system on the market.**

The system was approved for its SUDS compliancy and that it has sufficient rainwater drainage properties to eliminate surface ponding.

## The Strongest UV Stable Stonebound Surfacing System

You only need 18mm of LeesonBound® to equal the strength of other systems.

10N/mm²

LeesonBound® (18mm)

10N/mm²

Competitor 1 (25mm)

10N/mm²

Competitor 2 (55mm)

### What are the benefits to a stronger product?

To achieve the same strength as LeesonBound® using competitor products - **more product volume per square meter is needed** - as well as increased time preparing the ground works, further time applying the larger quantity of product resulting in a project that isn't as practical and cost effective as LeesonBound®.

## The LeesonBound® Range



### Snowfall

A delicate blend of pale stones to give a cool inviting look of fresh fallen snow.



### Sterling Silver

A sharp bolder mix of white and grey stones for a sparkle effect.



### Moonlight

A glimmering soft mix of white and grey stone.



### Scandinavian

Blending dark and pale stones to give a cool Nordic feel.



### Autumn

Delicate honey tones, a popular choice for driveways and paths.



### Cottage Gold

Mixing the honey with a darker stone for a traditional finish.



### Corn Gold

Enriching any driveway to produce a timeless finish.



### Daybreak

A rich brown elegantly mixed with paler beige.

## The LeesonBound® Range



### Trent

A natural mix of stones that resemble the base of a riverbed.



### Jewel

A vibrant mixture of light and dark stone to give an ornamental effect.



### Night Sky

The dark sky dotted with bright stars give a dramatic result.



### Green

The darkest of greens for a modern twist.



### Golden Harvest

A dynamic mix of light, dark and red stones is distinctive for any installation.



### Sun Set

Delicate blond tones stippled with strong terracotta.



### Golden Maize

Pale sandy colour characteristic of a smooth tranquil beach.



### Terracotta

Traditional red stone with a flaming, bold appearance.

# Mixing the PU and Aggregate

LeesonBound® stone binders are 2 component systems available in various pack sizes including 6.5kg and 7.5kg kits. Kits are pre-weighed to the correct ratio and should not be split. Mix A component prior to addition of B component, mix the A & B for 1-2 minutes to a smooth consistency. It is recommended to use one batch on a project. If more than one batch is to be used, care should be taken to use the same batch in one area in case of small batch to batch variation, this equally applies to the aggregate.

The mixed PU resin should then be introduced into the mixer containing the aggregate. The aggregate must be dry (<0.5% moisture) and free from dust.

While the mixer is running with the dry aggregate, add the PU resin at a ratio of minimum 6.5% up to 15% depending on end user requirements and the size and particle distribution of the aggregate – smaller particles, or greater particle distribution will require relatively more PU resin as the overall surface area is increased. Resin additions at these levels will ensure a well bonded, durable and sound system.

A rotary mixer or low speed paddle mixer are suitable for mixing.

Mix for 5 minutes until all of the aggregate is uniformly coated.



## Application of LeesonBound®

The blend of PU and aggregate should then be immediately applied to the surface and compacted with a trowel. The surface temperature should be between +10°C and +35°C for application. The system should be applied at least 3°C above the dew point measured for the application surface. Care should be taken to ensure that the correct, even coverage rate is applied across the application area. The surface should be installed at a minimum thickness of 3x the maximum stone grading used referring to our system build ups. Once levelled and compacted the surface can be smoothed with a trowel coated in a release agent, this allows for the top facing stones to be knitted together, giving an even surface. Suitable release agents are organic solvents such as xylene and white spirit, water should not be used as a release agent as it may cause foaming in the system.

## LEESONBOUND® BUILD UP

Urban Pathway - Occasional vehicles	
18mm - LeesonBound®	
50mm asphalt concrete - Binder course (base course)	
150mm - Sub base	

Rural Pathway - Light Pedestrian use	
18mm - LeesonBound®	
50mm asphalt concrete - Binder course (base course)	
100mm - Sub base	

Tree Pit - Heavy pedestrian use	
40mm - LeesonBound®	
Not Required - Binder course (base course)	
150mm - Sub base	

Private Drive - Straight	
18mm - LeesonBound®	
50mm asphalt concrete - Binder course (base course)	
150-225mm - Sub base	

Private Drive - Turning	
18mm - LeesonBound®	
50mm asphalt concrete - Binder course (base course)	
150-225mm - Sub base	

Car Park - Cars & occasional light delivery vehicles	
25mm - LeesonBound®	
35mm asphalt concrete - Binder course (base course)	
200-350mm - Sub base	
70mm - Road base	

Permeable Car Park - Cars & occasional light delivery vehicles	
25mm - LeesonBound®	
70mm asphalt concrete - Binder course (base course)	
300-500mm - Sub base	
Alternative Build Up - Road base	

Permeable Access Road - SUDS	
18mm - LeesonBound®	
70mm asphalt concrete - Binder course (base course)	
300-500mm - Sub base	
Alternative Build Up - Road base	

Permeable Private Drive - SUDS	
18mm - LeesonBound®	
70mm asphalt concrete - Binder course (base course)	
175mm - Sub base	
Alternative Build Up - Road base	

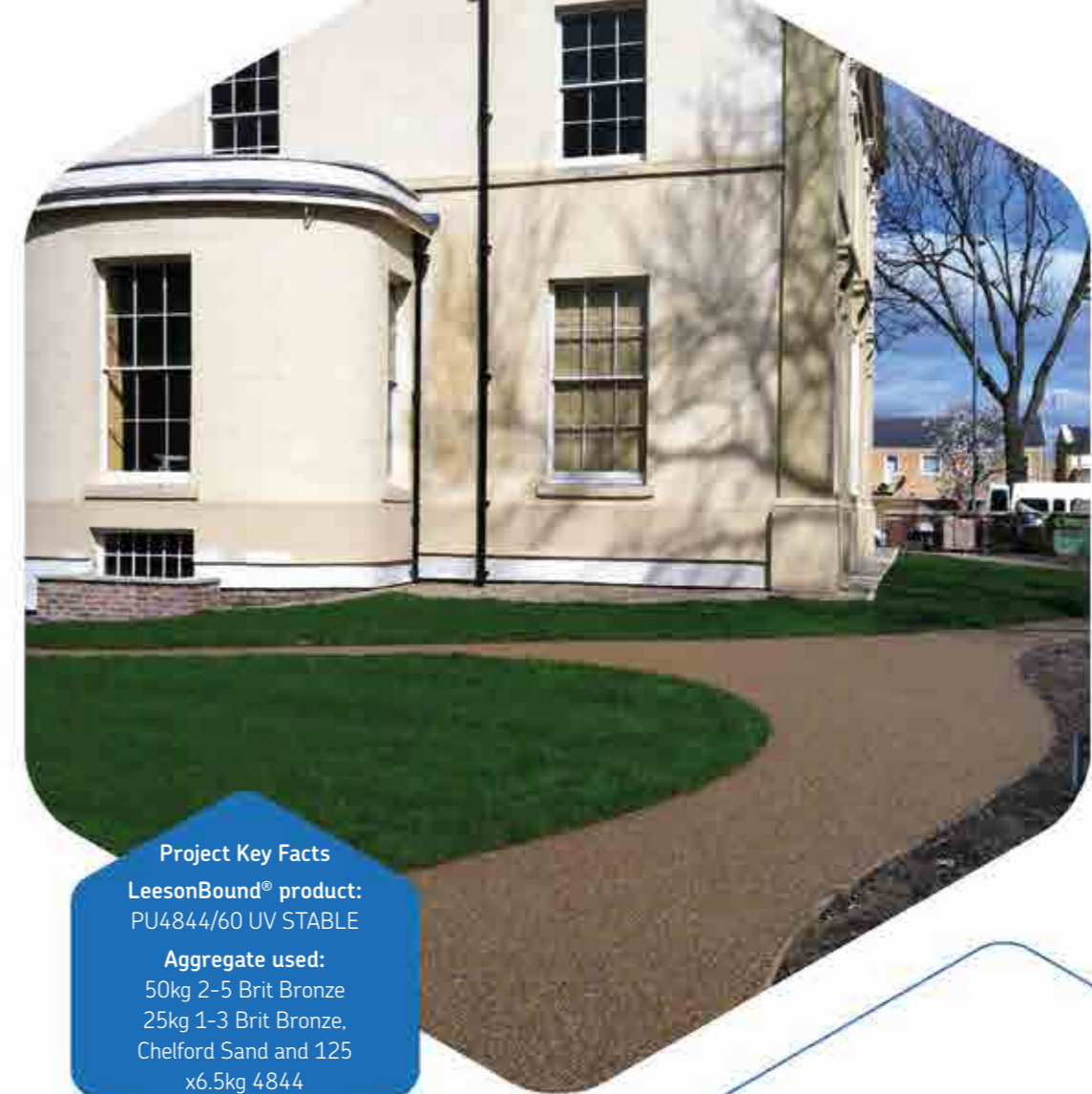
Permeable Path - SUDS	
18mm - LeesonBound®	
70mm asphalt concrete - Binder course (base course)	
175mm - Sub base	
Alternative Build Up - Road base	

## Case Studies



### Maypole Road, Wickham Bishops, Witham

LeesonBound products were installed onto a large drive in Essex giving the property a high quality finish. The company that carried out this installation also installed suitable ground works. The end result provided the customer with a high strength, exceedingly durable system that will be easy to maintain and looks stunning.



**Project Key Facts**  
**LeesonBound® product:**  
PU4844/60 UV STABLE

**Aggregate used:**  
50kg 2-5 Brit Bronze  
25kg 1-3 Brit Bronze,  
Chelford Sand and 125  
x6.5kg 4844

**Area:**  
300m<sup>2</sup>



### Elizabeth Gaskell Museum, Manchester

This Grade II\* listed building in Manchester was once the home of Elizabeth Gaskell, author of the famous novels Cranford, North and South and Wives and Daughters. The Manchester Historic Buildings Trust acquired the property in 2004 and in 2012 was given a Heritage Lottery Fund grant to bring the house to life and restore and furnish it to the period when the Gaskells lived there. The Trust's vision is to 'ensure the house gives pleasure, inspiration and a place to learn for today's visitors' and one of the first things that visitors will see as they approach are the LeesonBound® pathways that surround the elegant Regency-style villa and gardens. The resin bound adds style and blends beautifully, enriching the transformation of a run-down house to a welcoming family home.

## Case Studies



**Project Key Facts**  
**LeesonBound® product:**  
 PU4844  
**Aggregate used:**  
 Autumn Gold 5mm  
**Area:**  
 300m<sup>2</sup>



### La Sagesse, Jesmond, Newcastle upon Tyne

Leeson Polyurethanes' LeesonBound was the chosen product for the driveways and walkways for the redevelopment of La Sagesse in Jesmond, Newcastle. The former school has received an investment of £20m to become a very sought after housing development in the North East. Built in the 19th century, the gothic looking building opened as a Roman Catholic school in 1912 but, due to falling numbers was forced to close its doors in 2008. It is now luxury apartments and 2-5 bedroom newly built houses occupy the surrounding grounds making 48 properties in all. The quality project has been given the first Built for Life award in the North East as it meets all the important design elements such as adequate car parking, safe street design and access to amenities. This award means that the development offers a higher quality standard of living.



### Kirkgate Market, Leeds

As part of a regeneration scheme, Leeson Polyurethanes' LeesonBound stone binder system was installed in the flooring area of Kirkgate Market in Leeds. The market has seen a complete revamp which aims to bring in more locals and visitors to the daily market and fresh produce section as well as sample top street food traders in the café area. With the expected footfall to the market to increase by 20,000 people per week, a hard wearing, easy to maintain yet attractive system was needed to complete the redevelopment.

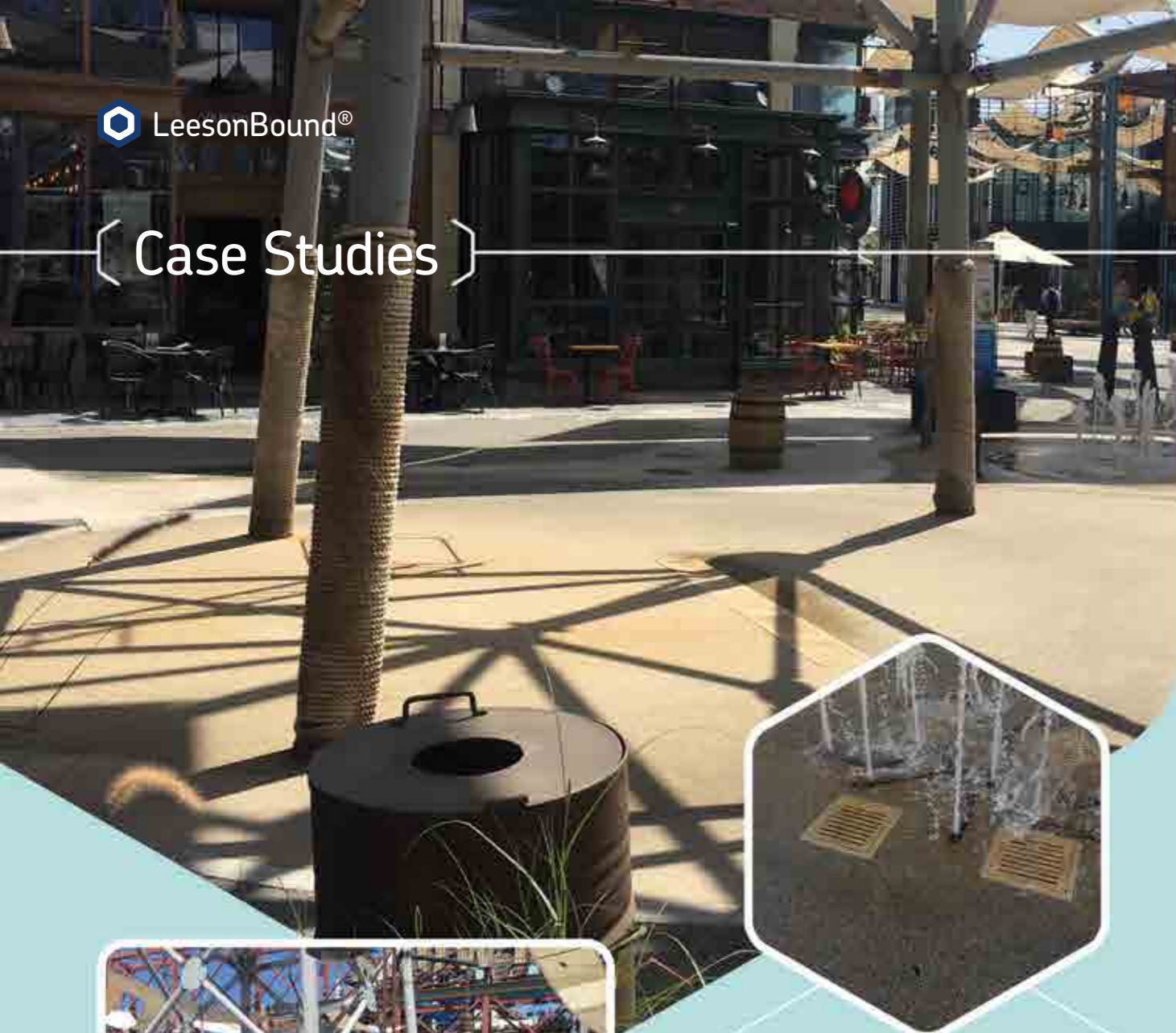
Leeson Polyurethanes' team worked closely with the main contractors as well as with members from Leeds City Council to design the optimum product and application to coordinate with the specification. LPU continued to support the installation team as the project was completed.



### 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, reactive PUR Hot Melt, or a product made especially for your industry: Leeson Polyurethanes can produce it.

## { Case Studies }



### La Mer – Dubai

La Mer in Dubai is a beachfront development incorporating shopping centres, restaurants and a water park. Using many reclaimed and repurposed materials such as driftwood and used metal items, the project integrates a minimalist and contemporary design. The architects wanted to use a SUDS (Sustainable Urban Drainage System) product for the pavement fountains and chose LeesonBound in a pale Scandinavian stone. This allows the water to be drained through the surface, collected and reused. SUDS surfaces mimic natural drainage processes and reduce the risk of flooding occurring.



### London Olympic East Village

Construction of the London East Village was completed in 2012 in time to house the 24,000 athletes competing in the London Olympic Games. After the games had finished the buildings were converted into a residential district for Stratford providing low cost and private housing within a community of offices, shops, schools and a health centre. LeesonBound® was chosen to surround the planted sections and paving stones to add a decorative feature in the communal outside areas. The seamless, high strength system, with its own excellent track record, will be easy to maintain and durable.



# LeesonGrip® Product Overview

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

## Leeson Grip 2-1

The system gives a hard wearing anti-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

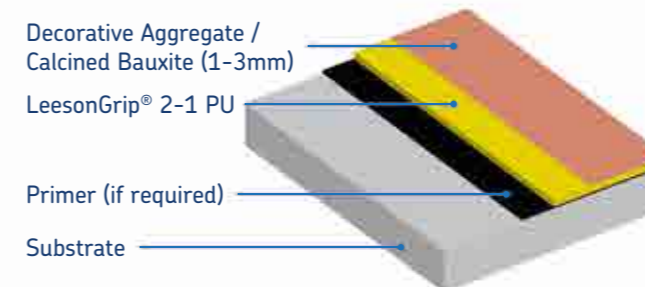
- Type 1 Roads\*
- Cycle Paths
- Pedestrian Areas
- Walkways
- Drives
- Pathways

## BENEFITS

- BBA Approved for over 12 years\*
- Anti-Skid Surface
- Bonding of Decorative Aggregates
- High Build System
- Fast Curing
- Excellent Wear Performance
- No odour
- Non Flammable
- Resistant to oil, diesel & petrol

\*Leeson Grip 2-1

## Technical Specification



### LeesonGrip® 2-1 (D3149/20)

**Thickness:** 1.5-2mm of PU Resin

#### Substrate Requirements

The substrate should be dry to 75%RH as per BS8204 and free from rising damp.

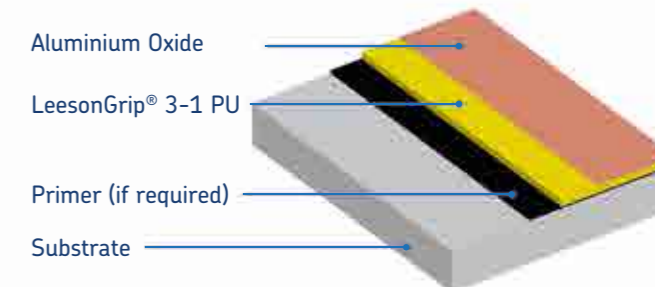
**Asphalt:** No primer required.

**Concrete:** Primer must be used. Minimum 25N/mm<sup>2</sup>, free from laitance, dust and other contamination.

#### Products included in this system

<b>Primer:</b>	Conprime-2 (E4568)	0.25kg/m <sup>2</sup>
	Chelford 52 Sand	1kg/m <sup>2</sup>
	Or PU3922 PU primer	
<b>Bonding Coat:</b>	LeesonGrip® 2-1 (D3149)	1.7-2kg/m <sup>2</sup>
<b>Aggregate:</b>	Decorative Aggregate / Calcined Bauxite 1-3mm	Net 7kg/m <sup>2</sup>

Detailed installation instructions are available on request.



### LeesonGrip® 3-1 VHB (PU4018/20)

**Thickness:** 2-3mm of PU Resin

#### Substrate Requirements

The substrate should be dry to 75%RH as per BS8204 and free from rising damp.

**Asphalt:** No primer required.

**Concrete:** Primer must be used. Minimum 25N/mm<sup>2</sup>, free from laitance, dust and other contamination.

#### Products included in this system

<b>Primer:</b>	Conprime-2 (E4568)	0.25kg/m <sup>2</sup>
	Chelford 52 Sand	1kg/m <sup>2</sup>
	Or PU3922 PU primer	
<b>Bonding Coat:</b>	LeesonGrip® 3-1 VHB (PU4018/20)	2.5-3kg/m <sup>2</sup>
<b>Aggregate:</b>	Aluminium Oxide	

Detailed installation instructions are available on request.

## { The LeesonGrip® Range }



**Silver Grey Granite**  
Available in 1-3mm  
and 2-5mm aggregate size.



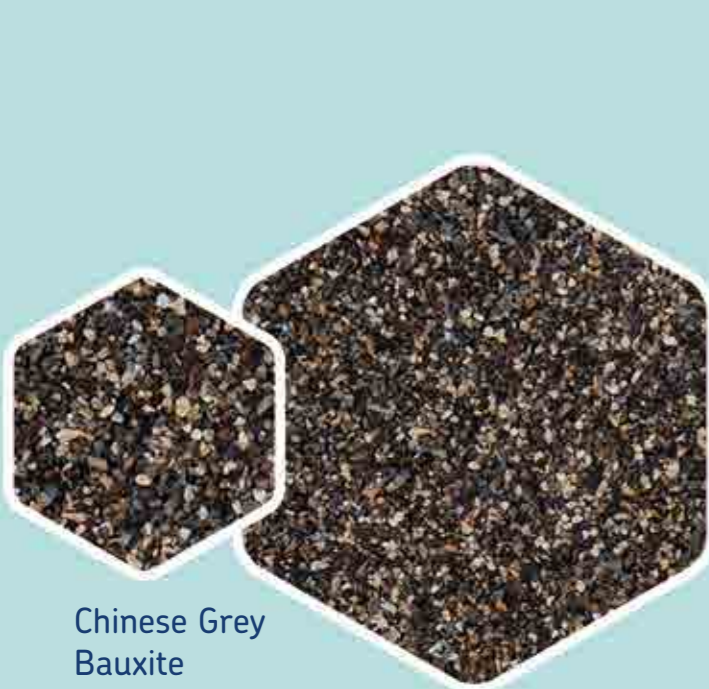
**Chinese Buff Bauxite**  
Available in traffic grade 1-3mm  
and pedestrian grade 0.9-1.4mm.



**Golden Pea**  
Available in 1-3mm  
and 2-5mm aggregate size.



**Green Granite**  
Available in traffic grade  
1-3mm, 2-5mm and  
pedestrian grade 1-2mm.



**Chinese Grey Bauxite**  
Available in traffic grade 1-3mm  
and pedestrian grade 0.9-1.4mm.



**Danish Quartz**  
Available in 1-3mm  
and 2-5mm aggregate size.



**Guyanan Bauxite**  
Available in traffic grade 1-3mm  
and pedestrian grade 0.9-1.4mm.



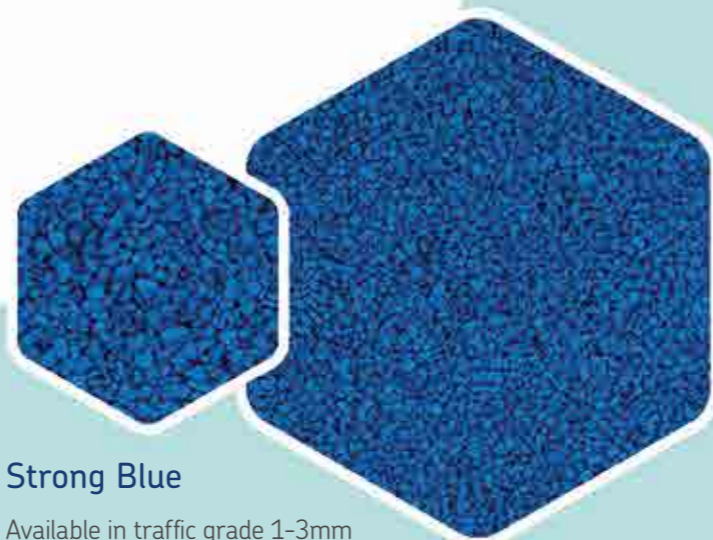
**Red Granite**  
Available in 1-3mm  
and 2-5mm aggregate size.

## { The LeesonGrip® Range }



### Black

Available in traffic grade 1-3mm and pedestrian grade 1-2mm.



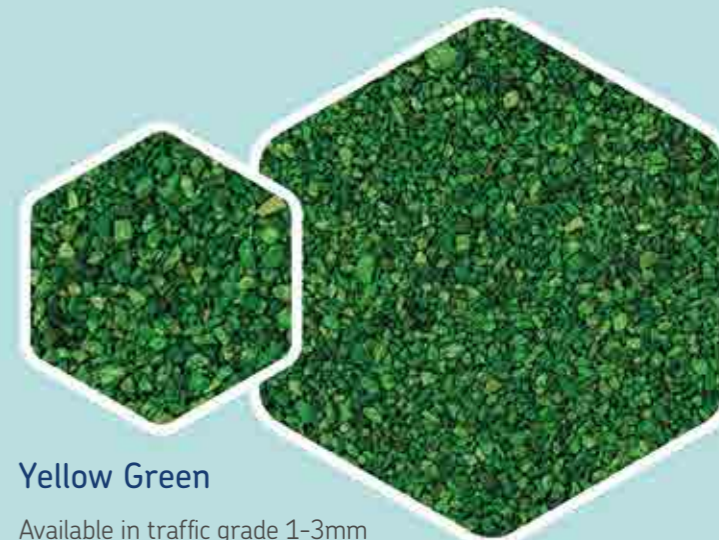
### Strong Blue

Available in traffic grade 1-3mm and pedestrian grade 1-2mm.



### Lemon Yellow

Available in traffic grade 1-3mm and pedestrian grade 1-2mm.



### Yellow Green

Available in traffic grade 1-3mm and pedestrian grade 1-2mm.



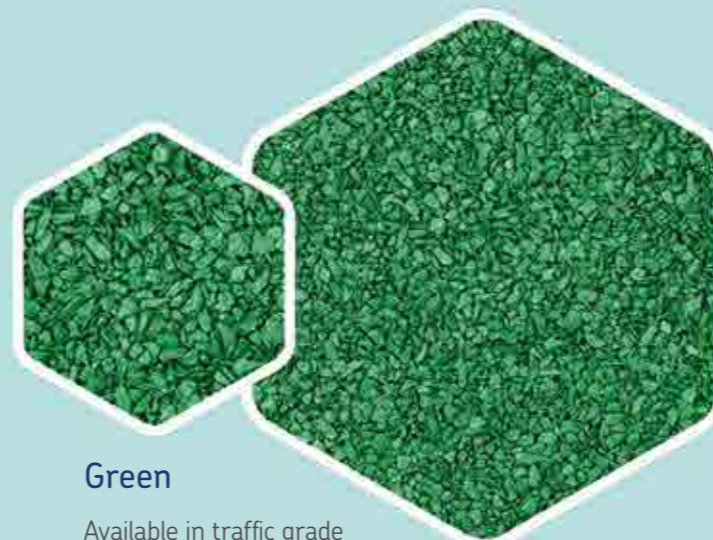
### Bold Red

Available in traffic grade 1-3mm and pedestrian grade 1-2mm.



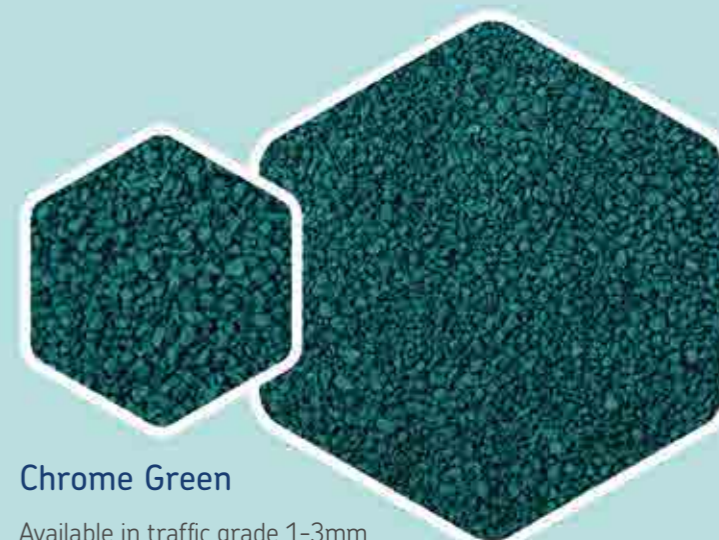
### Venetian Red

Available in traffic grade 1-3mm and pedestrian grade 1-2mm.



### Green

Available in traffic grade 1-3mm and pedestrian grade 1-2mm.



### Chrome Green

Available in traffic grade 1-3mm and pedestrian grade 1-2mm.

## Case Studies

**Project Key Facts**  
**LeesonGrip® 2-1 product:**  
 D3149/20  
**Aggregate used:**  
 1-3mm Bauxite  
**Area:**  
 1000m²



### Jephson Gardens, Leamington

Jephson Gardens, in the heart of Leamington Spa, are a popular tourist attraction comprising formal gardens, a sub-tropical glasshouse and cafés. The pathways that lead the visitor around these facilities are surfaced with LeesonGrip® 2:1 Anti-Skid. They were installed as part of an upgrade in 2014 along with the creation of a sensory garden.

The gardens were initially laid in 1834 to entice the patrons of the nearby spa bath house and were named after Dr Henry Jephson in recognition of his work with the town's poorer residents. The park has in the past been voted the Best Park in Britain and won the Green Flag award and featured in many television scenes.

**Project Key Facts**  
**LeesonGrip® 2-1 product:**  
 D3149/20  
**Aggregate used:**  
 1-3mm Bauxite  
**Area:**  
 950m²



### Broad Street, Oxford

Traditionally known as the 'The Broad', Broad Street in central Oxford is known for its bookshops, University colleges and has seen many events going back hundreds of years. Leeson Polyurethanes' Anti-skid product was chosen to surface part of the street that has been designated for pedestrians and cyclists in a bid to free the centre of the city from vehicular traffic.

Laid in 2005 and still in place today, the mix of aggregate blends perfectly with the stone colour of the buildings and creates a smooth base as well as being hard wearing. It demarks the pedestrian friendly area whilst making it a safe space for the many cyclists using the thoroughfare.



## Case Studies



### Toll Road, Mexico

20,000m<sup>2</sup> of LeesonGrip® 2-1 D3149 Anti-Skid was installed onto a Toll Road in Talca, Mexico to create a safe surface for traffic. The concrete surface of the busy road had become too smooth from the constant wear and was becoming a danger to vehicles with an increase in the accident rate. To keep the surface at a high friction level and to ensure the continuous operation of the road, the LeesonGrip® was installed and dramatically reduced the number of casualties recorded.

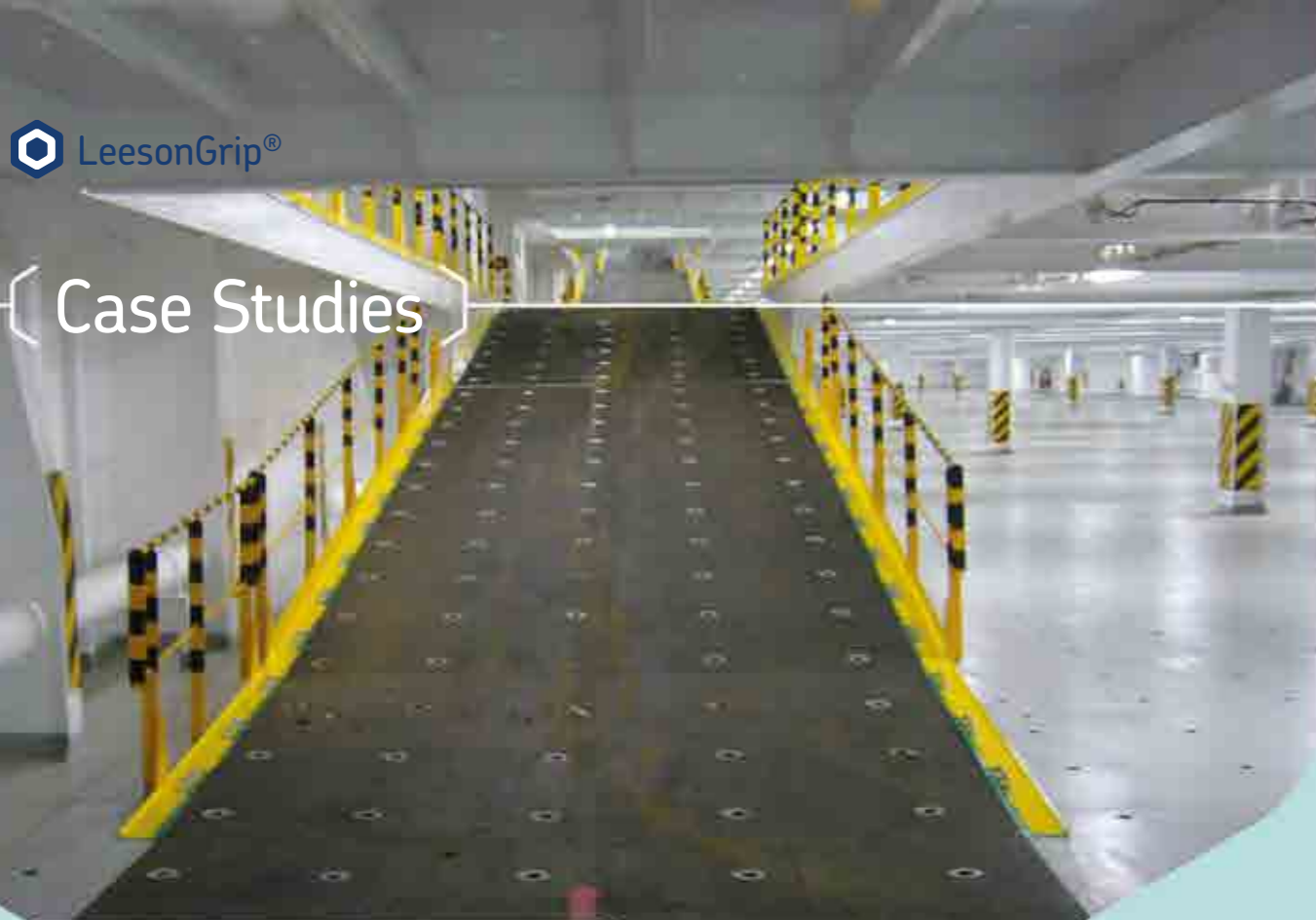


### Hardanger Bridge, Norway

The Hardanger suspension bridge is one of the longest in the world, its main span being 1,310m. It is located in the Hordaland county of Norway and crosses the Hardangerfjorden at its Eidfjorden branch and reduces travelling time between Oslo and Bergen. As the estimated traffic for the bridge was predicted at over 2,000 vehicles per day, a quality, hardwearing product was needed to surface the carriageway. Safegrip, as manufactured for our partner, Fjerby, in Norway, was chosen for the two driving lanes for cars and separate lane for pedestrians and cyclists along its 1,380m length of road. The impressive bridge stands 60m above the water and has two 200m-tall towers.



## Case Studies



### LeesonGrip® 3-1 VHB on Ships

LeesonGrip® 3-1 VHB is a high-performance coating system for marine applications, loading areas, bridge decking and other heavily trafficked areas. When the coating is dressed with aggregate it provides a heavy-duty high friction surface which is waterproof with a high thermal tolerance. With its Class 1 Fire Rating it has been installed onto many ramps and decks of ROROs (Roll On / Roll Off) which are large ocean going vessels including PCTC (Pure Car / Truck Carrier) where new cars are transported across the seas for delivery. Having the best Anti-Slip products is essential when conditions can get very wet and unstable but the LeesonGrip® ensures improved safety and reduced accidents while providing long service life and minimal maintenance.

### LeesonGrip® in Tunnels

Skid resistance is a major consideration on any road, but especially in tunnels where safety and consistent traffic flow is essential. Without the outside weather conditions, dirt and dust doesn't get washed or blown away and can get stuck on the surfaces which can cause safety issues. LeesonGrip® is specially formulated to be resistant to oil, diesel and petrol and gives an excellent wear performance on heavily trafficked roads. Visibility without natural lighting is also a factor in tunnels where light reflection and contrast is important. Coloured aggregates can be used with the system for demarcation of lanes as well as the ability to detect objects and other road users.



# Application

## Surface Preparation

The areas to which the system is to be applied shall be clearly defined and marked by the Purchaser on the existing road surfacing prior to commencement of work on-site.

All imperfections in the road surface not acceptable to the Installer shall be reinstated with a material approved by the Purchaser in consultation with the Installer.

The road surface shall be clean, dry and free from ice, frost, loose aggregate, oil, grease, road salt and other loose matter which may impair the adhesion of the System.

Where the road surface does not comply with Section 5.3 it shall either be cleaned by the Installer or others, by grit blasting, high pressure water jetting, low pressure water / abrasive blast cleaning, scarifying, scrubbling or other means approved by the Purchaser. To remove dust and other loose matter the road surface should be vigorously brushed or treated with hot compressed air. Any oil visible on the road surface shall be removed by washing and scrubbing with a suitable detergent solution followed by flushing with clean water or by other suitable means.

Existing road markings, ironwork, road edges or areas not to be treated and road studs shall be suitably masked.

## Weather Conditions

Installation of the System shall only be carried out at a road surface temperature of 5°C to 35°C.

Ambient and road surface temperatures together with relative humidity shall be recorded at the start and if weather is variable during the installation process.

Road surfaces shall be dry before and during the installation of the System.

The Installer will notify the purchaser of the curing period of the system dependent upon the prevailing weather conditions.

# Priming of Surfaces

## Bituminous Surfaces

The road surface should have a texture depth of between 0.5mm and 2.0mm as determined by the sand patch test.

All imperfections in the road surface should be repaired prior to laying the product.

The surface to be treated must be clean, free from frost, ice and road salt. The surface should also be sound, dry and free from dust and any loose material. Any visible oil should be removed with a detergent solution, flushed with water and the surface allowed to dry.

Other methods of cleaning the road include grit blasting, high pressure jet washing, low pressure water / abrasive cleaning scarifying and scabbling. Dust and loose surface material can be removed by brushing or treated with hot compressed air. This will also remove any surface moisture.

Any areas which are not to be treated are to be masked with a suitable tape.

We also have available a cementitious scratch coat system (D5126), for filling porous asphalt to reduce topcoat consumption. Please consult our Technical Data Sheet for D5126 for further information.

## Concrete and Timber

Concrete is to be hot compressed air blasted then primed with primer PU3922 (see individual data sheet for more information) and this allowed to cure for a minimum of 2 hours and maximum of 12 hours before applying the finish coating. On timber, the surface should be primed with primer (PU3922) and conditioned as above.

## Steel

It is to be shot blasted to SA2½ and primed with PU5015 metal primer and allowed to cure 1-2 hours' minimum, maximum 12 hours before finish coating.

# Base Build Up

Asphalt	
LeesonGrip®	
Scratch coat To fill surface voids	
40mm – suitable, well-compacted asphalt binder course (base course)	
50-100mm Type 1 (Dot Clause 803)	

## Mixing and Application

Add 1 part by weight of LeesonGrip® D3149 Part B (curing agent) to 2.15 part by weight of LeesonGrip® D3149/20 Part A (resin) and mix until a mass of uniform colour is obtained. The surface is then coated with the blend within 10 minutes (@ 19°C) at a minimum coverage rate of 1.5 kg per m² dependant on surface porosity and then allowed to self-level to give total coverage. The non-slip aggregate (moisture content less than 0.4%) is then scattered over the resin within 5 minutes (@ 19°C) excess aggregate can be removed after 2 hours. The site can be reopened to traffic after 4 hours depending on ambient temperature or until the binder is hard to the touch.

A bulk container of D4860 Coating Accelerator (2k) can be supplied for addition to LeesonGrip® D3149/20. 38g of D4860 Coating Accelerator (2k) should be added to reduce the pot life by half. A syringe or measuring pot should be used to measure quantity.

D4860 ACCELERATOR ADDITION LEVEL	APPROXIMATE CURE TIME AT 20°C (MIN)
0% Accelerator	20
38cc Accelerator	10
76cc Accelerator	5

Concrete	
LeesonGrip®	
Add a layer of primer	
75-100mm C25/30 (BS 8500) min	

DO NOT INSTALL  
IN TEMPERATURES BELOW 5°C

In some cases, particularly low temperatures, D4860 coating accelerator (2k) may need to be added to reduce the cure time.



## Aftercare

### Maintenance Schedule for Anti-Skid Surfacing

Leeson Polyurethanes have been supplying anti-skid systems since the early 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.

#### General

If repair work is required to an established surface, the area to be treated should be cut back to firmly bonded material, cleaned with hot compressed air (or any other suitable means) and the high friction system applied to the original specification.

#### Aftercare

The masking shall be removed and the System allowed to cure. During the curing period no disturbance or trafficking of the System shall be permitted. Before opening to traffic at the end of the curing period the excess aggregate shall be removed by vacuum sweeper or other suitable means.

The Installer shall inspect the road after 24 hours and carry out any necessary remedial work, or further sweeping.

#### Periodic Cleaning

General cleaning of the surface can be carried out by cold pressure washing up to a maximum 150 bar rating to remove dirt and grime. The water should be applied using a fan type lance which should be kept 200mm above the installed surface. Care should be taken however to prevent damage to the surface with excessive water pressure. Pressure washing can also be used to remove tyre marks.

### 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.

### Sand / Soil

Shovel up material and sweep surface clean with a stiff brush. Pressure washing up to 150 Bar can also be used to clean sand from the surface.

### 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.

### Ice and Frost

Salt can be used on the surface to help eliminate ice and frost. Once weather conditions return to normal the salt / grit needs to be washed off thoroughly to remove all salt traces.



## Pre-Application treatment

### Cementitious Scratch Coat Binder (D5126)

D5126 is an acrylic ester cementitious scratch coat binder based on octyl acrylate and acrylic acid. D5126 possesses highly cohesive strength coupled with good tack and adhesion properties designed to gap fill asphalt or concrete before application of top-coating systems.

**High solids content:** Low energy drying requirement.

**Excellent heat & light stability:** Unaffected by light and heat ageing up to 50°C.

**Ease of application:** Easy to use with trowels.

TYPICAL SPECIFICATION	
CRITERIA	TYPICAL VALUE
Colour:	White Liquid
Application Method:	Trowel / Squeegee
Viscosity @ 23°C:	215 +/- 65mPa.s
Thinner:	Water
Cure Time @ 23°C*:	80 mins

\*Cure time measured at 23°C and 50% relative humidity, cure speed will change due to environmental changes.

### Application

Asphalt surface to be cleaned before application, remove all dust, grease and debris.

Mix Sand and Cement into a 3:1 ratio

Add D5126 to the ratio below:  
D5126:28kg / Sand: Cement Blend 100kg

Mix until a slurry is formed and apply to asphalt using a trowel or squeegee.

Leave to cure fully before applying a top coat

### Single Component Moisture Curing Urethane Primer (PU3922)

PU3922 is a single component moisture curing urethane primer developed as a primer for concrete and timber. It can also be used as a seal coat on concrete.

**Resistance to high and low temperatures:** The primer / seal coat will withstand wide temperature ranges (-55°C to + 140°C) for extended periods without loss of strength.

**Fast Application:** High solids content and low viscosity result in fast application characteristics.

TYPICAL SPECIFICATION	
CRITERIA	TYPICAL VALUE
Colour:	Light Brown Liquid (Pigmented Versions Available)
Solids:	54 +/- 3%
Viscosity @ 15°C:	70 +/- 15mPa.s
Viscosity @ 23°C:	60 +/- 15mPa.s
Thinner:	Xylene
Cure Rate:	Product should be left to cure for 3 hours. Ensure there is no solvent left on the floor before over coating.
Coverage:	6-10m²/L dependant on substrate porosity
Specific gravity:	1.0 gm/cc

### Application

Concrete must be prepared for priming by hot compressed air blasting or some other suitable means. When blinded with CH52 kiln dried sand, PU3922 can be used as a metal primer for pure polyurea PURA5170. Ensure substrate to be primed / coated is dry.

PU3922 should then be applied by roller at a rate of 6-10 m²/L and left for a minimum of 90 minutes to cure.

If the primer is left for more than 24 hours then a second coat should be applied and left as above before the anti-skid surface is laid.

Part drums of PU3922 should have nitrogen gas injected into the headspace to prevent skinning. The drums should then be resealed.

## 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.

## Training

Leeson Polyurethanes recognises the importance of the correct installation of their products in order to achieve the optimum results. Therefore, we offer to all our customers purchasing LeesonBound® the opportunity to attend a training course, for in depth knowledge on the precise application method. Hosted by an experienced Sales Manager, the day begins with an introduction and presentation on the LeesonBound® system highlighting the market leading product's strength and long track record. Guidance is given on assessing the surface, mixing the PU, mixing the aggregate and then installing the system

knowing the ideal thickness to be achieved. This is followed by a practical demonstration in the lab area given by the Technical team. Lunch and refreshments are provided followed by a Question and Answer session. Once the demonstration day has been completed the next stage is to support the customer with their on- site application. The Sales Manager will visit an installation and observe as the product is mixed and applied giving advice as well as be on hand to answer any queries. A certificate will then be issued to evidence being an authorised installer.



## How to Order

To find out more about our products, please call sales on:  
**+ (0) 1926 833367**  
 or email:  
[lpusales@icpgroup.com](mailto:lpusales@icpgroup.com)

Sales / General Enquiry:  
[lpusales@icpgroup.com](mailto:lpusales@icpgroup.com)

For all worldwide export enquiries please email:  
[lpusales@icpgroup.com](mailto:lpusales@icpgroup.com)



Visit [lpultd.com](http://lpultd.com) to view our full product range

## Award Winning Products



### 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



### Mulch Surfacing

Non-hazardous, fast curing, flexible, solvent free resin for bonding rubber mulch systems.

#### USES

- Mulch systems
- Play areas
- Pathways



### Sports Structural Spray

One component spray applied elastomeric coating applied with EPDM rubber. Applied to SBR rubber shock pad. Once cured the system cures to form a durable elastomeric, rubberized surface.

#### USES

- Athletics tracks
- Tennis courts
- Playgrounds



### Sports Pitch / Indoor Sports

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

#### USES

- 3G & 4G Sports Pitches MUGAs



### 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



### Polyurea

Range of polyurea protective coatings.

#### USES

- Concrete protection
- Waterproofing
- Balconies
- Scenography
- Hardcoats





Unit 5 Cyan Park, Phoenix Way, Coventry, UK

Tel: +44 (0) 1926 833367

[lpusales@icpgroup.com](mailto:lpusales@icpgroup.com) | [www.lpultd.com](http://www.lpultd.com) | [www.icpgroup.com](http://www.icpgroup.com)

{ A bond for life }