



Specialists in applying  
High Performance  
Protective Coatings



Spray-applied specialist coatings providing outstanding chemical-resistant protection for concrete, steel and other substrates.



The GLS Coatings system provides a strong, seamless heavy duty, chemical resistant, hard wearing surface that will maintain its durability year after year and will outlast standard epoxy systems by up to ten times.

Our coatings are quick to apply and are capable of receiving light foot traffic within 5 seconds of application. This allows for minimum disruption and downtime within commercial applications.

They are extremely hard wearing and will withstand heavy fork lift and pallet truck traffic. Being solvent free, taint free, odourless and non toxic makes it ideal for use in medical, food and animal environments.

Our flooring applications are economical, stronger, quicker and less disruptive to install than conventional flooring applications, providing the fastest back in service coating available. They are anti-slip, tested in accordance with **BS 7976-2:2002** and **EN 1341:2001** and are available in a variety of colours. They can be applied from 1mm to any required thickness.





GLS' coatings are extremely hard wearing and is typically used in the following environments:

- Seamless Roofing
- Anti-slip Flooring
- Antimicrobial
- Protecting Concrete Structures
- Chemical Bunds
- Rail Coatings
- Electrical Insulation
- Playgrounds
- Wet Rooms
- Marine Applications
- Off-shore Oil Platforms
- Parking bays
- Pools

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There is no disruption to production while GLS Coatings apply your new seamless roof coating.

## GLS Seamless Roof Coatings

**A revolutionary spray applied Roofing System - which will significantly extend your roof's lifespan.**

GLS Coatings' Specialist seamless roof coatings will significantly extend the lifespan of the roof without the expense of a complete re-roof. And our work carries a manufacturer's warranty of up to 30 years, to give you complete peace of mind.

When combined with our Spray-Foam Insulation, over-coated with our Specialist Coating, this fully complies with the new Part L Building Regulations, governing the insulation properties, when existing buildings are being renovated. And our roof coatings can be used to fully encapsulate asbestos, without disturbing it – avoiding the costs of a complete re-roof, while guaranteeing a rapid return to service.

Our Technicians spray-apply the coating and **IT IS TOUCH-DRY IN UNDER 10 SECONDS!**

Our industrial roof coatings are used extensively to seal and prevent flat roof leaks in industrial and commercial buildings. GLS Coatings' Roofing Systems can be applied over most common roof surfaces including concrete, tiles, bitumen, asbestos sheeting, hardwood and plywood boards.

Our Technicians operate from mobile coating units, complete with top of the range coating machines, compressors and generators. As with any coating, surface preparation is everything – whether they are coating steel, concrete or timber, our technicians will ensure the substrate is correctly prepared to receive GLS' specialist roofing coatings.





GLS Coatings' specialist roof coatings are seamless, maintenance free and fast drying (10 seconds), which will INSTANTLY seal and protect all exterior roof areas. Our industrial roof coating provides a totally weather resistant surface which will withstand extreme temperatures. AND it can be applied in all temperatures, from -50°C to 120°C.

Our industrial roof coatings are used extensively to seal and prevent flat roof leaks in industrial and commercial buildings.

GLS Specialist Roofing Coating is also an excellent solution for waterproofing leaky metal roofing. The elastomeric nature of the membrane/coating system means it will easily absorb the natural expansion and contraction cycles of the metal roof without tearing or fracturing. This is critical for a long and successful service life.

The speed of application available with the GLS roof coating ensures that the roof is coated and back in service far quicker, with less disruption than conventional roof applications. Faster return to service keeps costs to a minimum and saves you money.

**GLS Coatings' Specialist Roofing System is applied by our own accredited roofing Technicians and has the following benefits:**

- Long Lasting – up to 30 years
- Quick to Apply
- Touch Dry in Seconds
- Seamless
- Eco-friendly
- Anti-slip
- 300% Elongation





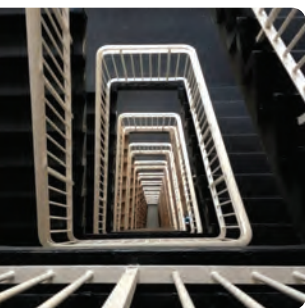
# Seamless Industrial and Commercial Floor Coatings

**Industrial flooring – we don't usually give it a second thought. But industrial flooring is subjected to a constant battering – from feet to vehicles. And when concrete floors fail – it is hugely disruptive to production.**

GLS Coatings' accredited and experienced technicians will provide a flooring system that is strong, seamless, heavy duty, chemical resistant and hard wearing. The surface will maintain its durability year after year and will outlast standard epoxy flooring systems by up to TEN times.

GLS Specialist Industrial Flooring Coating, applied by our own Certified Technicians is **TOUCH-DRY** in **UNDER 10 SECONDS** and is capable of receiving light foot traffic immediately. This allows for minimum disruption and downtime within industrial and commercial applications.

GLS Specialist floor coatings are extremely hard wearing and are typically used in the following environments:



- Industrial flooring
- Commercial flooring
- Anti-slip van flooring
- External flooring
- Anti-slip stairs and walkways
- Playgrounds
- Wet rooms
- Parking bays

Our industrial coatings are economical, stronger, quicker, and less disruptive to install than conventional flooring



applications, providing the fastest back in service concrete coating available.

GLS specialist industrial flooring coating will withstand heavy fork lift and pallet truck traffic. Being solvent free, taint free, odourless and non-toxic, our industrial flooring coatings are ideal for use in medical, food and animal environments.

Our industrial floor coatings are non-slip, tested in accordance with **BS 7976-2:2002** and **EN 1341:2001** and are available in a variety of colours. They can be applied from 1mm to any required thickness.

GLS Specialist Industrial Coating products will adhere to virtually any substrate, regardless of shape or size, including wood, concrete, fibreglass, plastic, metals, steel and copper, whether new or in service.



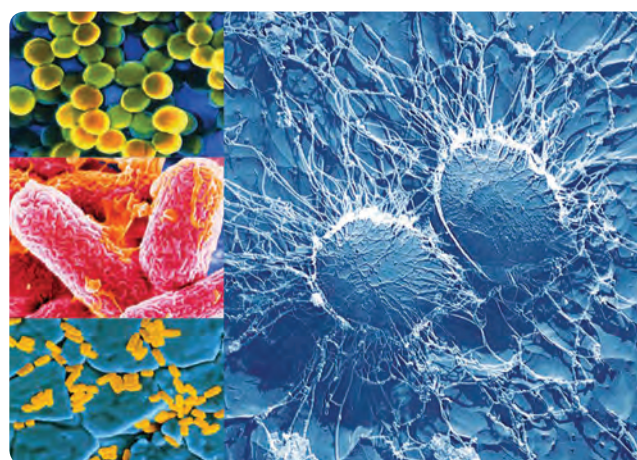
## Antimicrobial coatings

The most recent research has demonstrated that MRSA and other hard-to-treat infections are spread by non-sterile surfaces. And the best deterrent against the spread of infection comes in the form of an antimicrobial barrier.

That is why GLS Coatings' antimicrobial specialist coatings are being increasingly specified by Local Health Authorities for operating theatres, ward and corridor floors, where total hygiene is of paramount importance.

Our antimicrobial coatings are also being used for ambulance interiors, including their floors and other surfaces, to prevent the spread of infection through surface contact.

GLS Coatings' antimicrobial coatings can also be found where infection-control is being used in the food industry, for veterinary care, milking parlours, refuse, cleansing, transport, all benefitting from our silver-based bacteria inhibiting antimicrobial coating.



*GLS Coatings' antimicrobial coating provides protection against most common bacteria, including MRSA and Clostridium difficile, or C diff., Staphylococcus aureus, Escherichia coli, Salmonella choleraesuis and Listeria welshimer.*

| Criteria               | Polyurethane       | Epoxy Powder Coat  | GLS Coatings           |
|------------------------|--------------------|--------------------|------------------------|
| Curing Times           | Slow               | Hours              | <10 Seconds            |
| Moisture Ingress       | Yes                | Yes                | No                     |
| Elongation             | 600%               | Brittle            | 700%                   |
| UV Colour Stability    | Yellowing with age | Yellowing with age | 100% UV, Colour Stable |
| Abrasion Resistant     | Average            | Good               | Extremely Good         |
| Tensile Strength       | Good               | Average            | Good                   |
| Chemical Resistance    | Good               | Good               | Excellent              |
| VOC Free               | No                 | No                 | Yes                    |
| Temperature Resistance | -30°C to +140°C    | -20°C to +110°C    | -50°C to +150°C        |
| Seamless               | No                 | No                 | Yes                    |
| Durability             | Good               | Average            | Excellent (25 years)   |



GLS concrete coatings can be used in a wide range of applications, protecting bunds and are particularly effective in sealing and protecting concrete structures.



## Concrete... we've got it covered

**Whether you're lining a new bund or repairing a leaking bund, or whether you need Primary or Secondary Containment, our protective bund coatings are the long term cost-effective solution.**

GLS Coatings' accredited and experienced Technician can completely coat your bund with our Specialist Bund Coating. Our chemical resistant bund coatings are proven to be resistant to hydrogen sulphide ( $H_2S$ ), and a wide range of other chemicals. By repairing your leaking bund with one of GLS Coating's chemical resistant bund coatings, you will be fully compliant with the Oil Storage Regulations.

Our coatings can convert temporary interlocking concrete blocks into permanent, sealed structures, impervious to a wide range of chemicals. Whether you need silage pits, salt-storage silos, or whether you wish to convert a temporary structure into a permanent chemical-resistant bund – GLS Specialist Coatings are the proven solution.

GLS Coatings are particularly effective against hydrogen sulphide ( $H_2S$ ) and sulphuric acid ( $H_2SO_4$ ) which affects the calcium carbonate constituents of concrete, and a wide range of chemicals and can halt the effects of concrete cancer.

GLS Coatings' Specialist bund coatings system is spray-applied, fast-curing and is touch-dry in 5 - 10 seconds, giving you a quick return to service for leaking bunds. It is a long term, cost effective solution, for you and the environment. GLS Coatings' Specialist Bund Coatings meet recent legislation, which states that bunds must now be in good repair, of adequate size and be completely watertight.

### Coastal Protection

Britain's coastline has taken a battering from the sea, with sea-walls being swept away by the ravages of the storms. GLS Specialist Protective Coating can preserve and protect the concrete which lines our coasts. Our coatings are resilient to the effects of abrasion and saltwater and are proven to withstand the blows from a sledgehammer.





## Bespoke Bund & Tank Coatings

**The Environment Agency is able to impose uncapped fines on anyone who causes any spill. The Oil Storage Regulations are designed to prevent oil spills. Oil is the commonest pollutant in the UK, accounting for one quarter of all incidents.**

GLS Coatings' bund and tank linings create a completely seamless chemical resistant membrane, providing a sealed environment which contains any potential diesel, fuel, chemical, or oil spillages within the bund or tank.

Only GLS Specialist bund coating is resistant to a wide range of chemicals, from Potassium Hydroxide, to Hydrochloric and Sulphuric Acid. It has been used successfully on a caustic soda bund, where other coatings had failed. As with all GLS Coatings, the bund or tank is back in service the same day.

Chemical Resistance Tables on Pages 14-15 of this booklet indicate the range of chemicals which GLS Coatings can resist within banded areas.

Our protective bund and tank coatings are the long term cost-effective guaranteed solution and offer the following benefits:

- Resistant to a wide range of chemicals
- Approved for contact with potable water
- Used in marine environments
- Used in cold storage facilities
- Suitable for water waste facilities
- Extremely durable and hard-wearing
- Same day return to service





## Specialist coatings for **Rail Infrastructure**



**ONLY GLS 100R has been approved for removing touch potential up to 20,000 Volts and has been independently tested by ERA Technology.**



GLS 100R has been approved for the electrical insulation of steelwork on OLE and is proven to last up to 30 years.

GLS 100R rapid cures in only 10 seconds and is Network Rail approved, CE Certified and VOC-free.

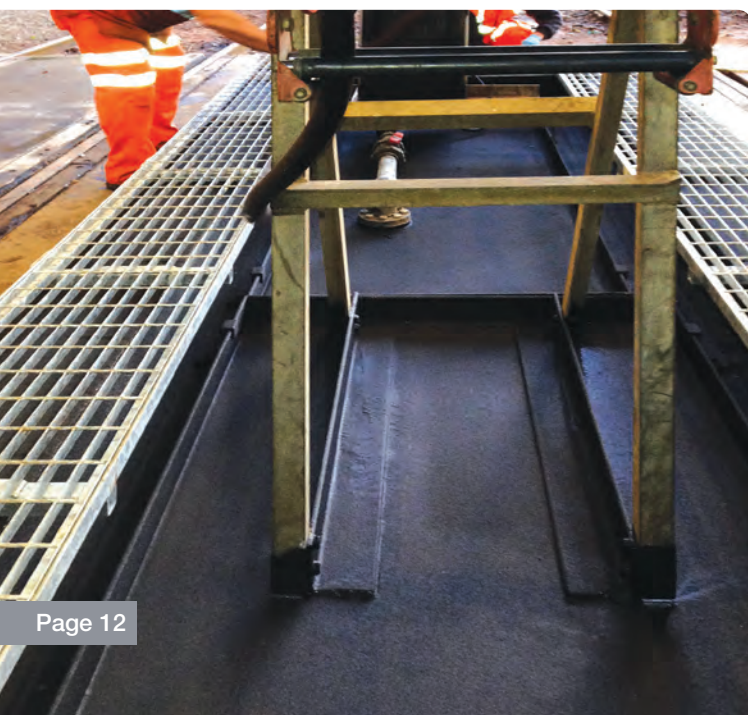
Our rail coatings provide a fast return to service, allowing work to be completed during off peak hours. GLS 100R is abrasion resistant and protects against harsh environments. It also offers anti-graffiti and anti-static properties. GLS Coatings use Accredited PTS trained Technicians to carry out all work.

GLS 100R coatings are applied by our PTS trained technicians. GLS Coatings' mobile rigs include a spray machine, a portable generator and an air-compressor. Completing the kit is a collapsible spray-tent, with GRP mechanics. This ensures it complies with Network Rail's safety requirements.

As a Network Rail Approved Supplier, GLS Coatings' PTS trained technicians, using self-contained mobile coating rigs, can coat and encapsulate ANY steelwork – whether it is the metal railings surrounding a sub-station, or the steelwork of a pole-mounted distribution transformer. GLS 100R is the PROVEN solution when complete insulation protection is needed.

### GLS 100R Benefits:

- GLS 100R offers corrosion and waterproof and electrical insulation protection for rail infrastructure
- GLS 100R allows for improved asset protection, project performance and site safety
- Applied by fully mobile, PTS-trained Technicians
- Unrivalled speed of application - touch-dry in under 10 seconds
- Virtually maintenance free - lasts for decades
- Excellent crack repair capability
- Protects against water ingress
- Enhances look of existing structures (*bridges, walkways, roofs etc*)
- Easy to clean (*anti-graffiti, & optional anti-bacterial properties*)





# Electrical Insulation

**GLS 100R is the ONLY approved electrical insulation coating that insulates up to 20,000 Volts**

- Do you want a coating that is proven to insulate steelwork up to 20,000 Volts?
- Do you want a coating that will insulate against the risk of touch-potential?
- Imagine having an approved insulation coating that will last for decades.
- Do you want a coating that is TOUCH-DRY in UNDER 10 SECONDS?
- Then GLS Coatings' GLS 100R, independently tested by ERA Technology is the ONLY ONE for you.
- GLS 100R Coating, when applied to steelwork, provides an insulating coating resistant up to 20,000 Volts.

## Wessex Routes have chosen the best - why don't you?

**Wessex Routes have insulated ALL of their Location Cases covered by the ORR Notice I/20121220/JSM (SIN 119)**

Using the GLS 100R Coating, which is certified by ERA Technologies, (developed jointly with FT Transformers and GLS Coatings Ltd), we were able to coat the Location Cases from Waterloo to Southampton while they were still 'live', meaning there was no interruption to the network.

GLS Coatings Technicians, with their fully mobile, self-contained spray units, travelled over 1,000 miles in two weeks to prepare and insulate ALL of the platform-sited Location Cases to over 20,000 Volts.

Using top-of-the range coating units, complete with generators and compressors, our PTS-trained Technicians tackled the diversity of the work head-on. From Locs under stairs at Waterloo to some set into embankments on the more rural stations, the work was completed in just TWO WEEKS.





# GLS 100R - always on

GLS 100R can be used in a wide range of applications, protecting trackside assets, rolling stock, roofs and platforms.

**GLS 100R offers outstanding rust, corrosion and waterproof protection for rail infrastructure. GLS 100R allows for improved asset protection, project performance and site safety.**

GLS 100R is high performance Class I fire rating coating that is touch dry in 10 seconds. It offers protection against weathering and UV exposure and is able to withstand heavy impacts, heavy loads and vibration. GLS Specialist Protective Coatings – applied by our Accredited, PTS-trained Technicians – provide the complete solution to coat and protect the whole range of rail infrastructure.

GLS 100R offers a fast return to service and is used extensively through the rail industry. From platform roofs, to floors and from lift shafts to chemical bunds. From anti-slip on stairways, to insulation coatings on location cases and gantries. We can even coat the line-markings on platforms and level crossings.

## GLS 100R Applications

All structures can be coated to preserve and protect them; GLS Coatings are resistant to a wide range of chemicals and have been used to coat diesel bunds for Network Rail. GLS 100R can be used in a wide range of applications, protecting trackside assets, rolling stock, roofs and platforms including:

- Abrasion resistant coatings in vehicles
- Coating for trailers carrying waste / aggregate
- Vehicle body undercoating (rolling stock and others)
- Protecting RV trucks from electrical conductivity (HV)
- Highway and bridge overlays
- Repair to rolling stock hatches
- Bunded areas for chemical protection
- Coating inside of tanks for protection against corrosion





GLS spray-applied specialist coatings provide outstanding rust, corrosion, electrical insulation and waterproof protection for rail infrastructure

## n track ...

GLS 100R is high performance Class I fire rating coating that is touch dry in 10 seconds. It offers protection against weathering and UV exposure and is able to withstand heavy impacts, heavy loads and vibration.

GLS Coatings are recognised as a 'Centre for Excellence' with over 15 years experience in protective spray coating. From trackside assets and rolling stock, to roofs and platforms, GLS Coatings' technicians have got it covered.

GLS 100R Coating has been tested and certified by ERA Technology and is the ONLY approved coating that insulates up to 20,000 Volts.



Our anti-slip coatings are proving their worth on floors, where their resilience to foot traffic and vehicular traffic means the life-expectancy is increased ten-fold.

### OUR GLS 100R COATING GUARANTEES A RAPID RETURN TO SERVICE

GLS Coatings are proud to be partners with FT Transformers in developing and applying the protective coating for their transformer cabinets - contributing to their Class II status.

Spray-applied GLS 100R provides outstanding insulation, rust, corrosion and waterproof protection for rail infrastructure.

## Network Rail

APPROVED  
SUPPLIER 45121



### GLS Coatings – Typical Chemical Resistance, Normal Exposure

Table I - Chemical Resistance per ASTM D 1308

| Chemical                   | Aromatic        | Aliphatic       |
|----------------------------|-----------------|-----------------|
| Acetone                    | A               | A               |
| Brake fluid                | B               | C               |
| Clorox                     | NR <sup>1</sup> | A               |
| Dimethyl Formamide         | NR              | NR              |
| Petroleum, unleaded        | A               | A               |
| Hexane                     | A               | A               |
| Hot tub water <sup>2</sup> | B               | A               |
| Hydraulic oil              | A               | C               |
| Methanol                   | A               | C               |
| 5% Methanol/Petroleum      | A               | C               |
| Motor oil                  | B <sup>1</sup>  | B <sup>1</sup>  |
| Propylene carbonate        | C               | C               |
| Sodium hydroxide,          |                 |                 |
| 5%                         | A               | A               |
| 10%                        | A               | A               |
| 25%                        | A               | A               |
| 50%                        | B <sup>1</sup>  | B <sup>1</sup>  |
| Sulphuric acid             |                 |                 |
| 5%                         | A               | B               |
| 10%                        | B               | B               |
| 50%                        | NR              | NR              |
| Concentrate                | NR <sup>3</sup> | NR <sup>3</sup> |
| Vinegar, 5% acetic acid    | A               | B               |
| Water                      | A               | A               |

**Code describing chemical's effect on elastomer – 7 day exposure except as noted:**

A - No visible damage  
 B - Little visible damage  
 C - Some effect - swelling, discolouration, cracking  
 NR - Not recommended  
<sup>1</sup> - Some discolouration only  
<sup>2</sup> - Brominated water  
<sup>3</sup> - Less than 24 hour exposure

Note: These results do not pertain to a specific formulation of polyurea, and should not be construed as specific test data for all types; however, these are representative results for 100% solids aromatic, plural-component pure polyurea. Consult with GLS Coatings for product-specific test results.

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## GLS Coatings – Typical Chemical Resistance, Extended Exposure

Table 2 - Chemical Resistance per ASTM D 3912

| Chemical                             | 12 Month Exposure                      |
|--------------------------------------|--|
| Methanol                             | Slight swelling, <48 hours             |
| Petroleum                            | Slight surface change, no softening    |
| Diesel fuel                          | No visible damage                      |
| Toluene                              | Slight swelling, <24 hours             |
| MTBE                                 | Slight surface change                  |
| 5% MTBE/Petroleum                    | Slight surface change                  |
| Motor oil                            | Slight surface change, no softening    |
| Hydraulic fluid                      | Slight surface change, no softening    |
| 2-methylbutane                       | No visible damage                      |
| Water - room temperature             | No visible damage                      |
| Water 82° C, 14 days                 | No visible damage                      |
| 10% NaCl/water - room temp.          | No visible damage                      |
| 10% NaCl/water 50° C, 14 days        | No visible damage                      |
| 10% sugar/water                      | No visible damage                      |
| Sulphuric acid 5%                    | No visible damage                      |
| Sulphuric acid 10%                   | No visible damage                      |
| Sulphuric acid 3%, 50° C, 14 days    | No visible damage                      |
| Hydrochloric Acid 5%                 | No visible damage                      |
| Hydrochloric Acid 10%                | No visible damage                      |
| Phosphoric Acid 10%                  | No visible damage                      |
| Ammonium Hydroxide 10%               | No visible damage                      |
| Ammonium Hydroxide 20%               | No visible damage                      |
| Sodium Hydroxide 10%                 | No visible damage                      |
| Sodium Hydroxide 20%                 | No visible damage                      |
| Sodium Hydroxide 50%                 | Slight surface discolour, no softening |
| Sodium Hydroxide. 1%, 50° C, 14 days | Slight surface discolour, no softening |
| Potassium Hydroxide 10%              | No visible damage                      |
| Potassium Hydroxide 20%              | Slight surface discolor, no softening  |
| Acetic acid 10%                      | No visible damage                      |

Results based on 50% immersion, 25 degrees C exposure for one year.

Note: These results do not pertain to a specific formulation of polyurea, and should not be construed as specific test data for all types; however, these are representative results for 100% solids aromatic, plural-component pure polyurea. Consult with GLS Coatings for product-specific test results.

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