

**ARMOUR**  
**COATINGS**<sub>LTD</sub>



# **ARMOUR COATINGS**

## **CHEMICAL INDUSTRY**

# WE HAVE IT COVERED



# Range of Systems Available From Armour Coatings Limited

When it comes to sealing and protection, more and more people are discovering the high-performance advantages of the range of protective coatings available from Armour Coatings Limited. From industrial strength, construction and engineering applications, asbestos encapsulation and high-performance roof waterproofing through to domestic use in ornamental garden ponds. Metfiex products can be applied to virtually any surface including concrete, metals, geotextiles, timber, plastics, etc. Our products are providing fast, cost-effective solutions that are second to none.

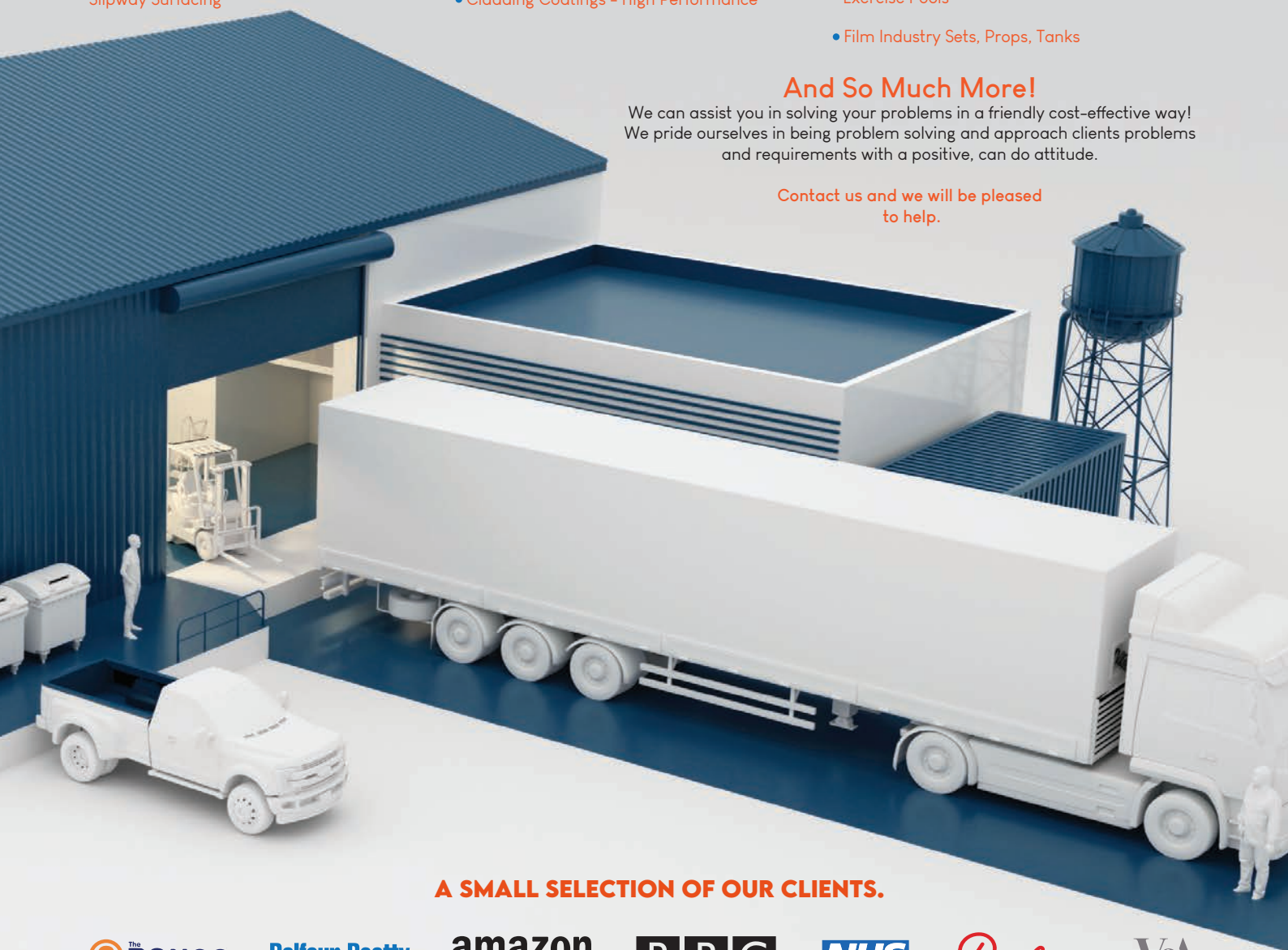
## Coating and Lining solutions available for :

- Car Park Deck Waterproofing
- Microbial Resistant Hygienic Floor & Wall Coatings
- Tank Insulation & Silo Lining
- Industrial Containment Bunds and Tanks, Effluent Pits & more
- Industrial Flooring and Roofing
- Leisure Industry, Swimming Pools, Flumes, etc.
- Cushion Flooring Anti-Skid Surfacing for Roads, Walkways, Ramps, Staircases
- Sprayed Foam Insulation – External and Internal
- Cooling Tower & Duct Lining
- Marine Civil Engineering – Boat Decks, Ramp & Slipway Surfacing
- Nuclear Power Industry – Vent Stacks, Decontamination Areas, etc.
- Sewage Works Waterproofing & Lining
- Truck Bed Liners, Van Lining, etc.
- Leisure Industry – Changing Rooms, Roofs,
- Anti-Slip Flooring, Bridge, Terracing and Walkways Pedestrian and Trafficked Ramps
- Ponds, Lakes, Canals, Aquariums and Water Features
- Loading Bays & Plant Rooms
- Seclusion Room, Prison Cell &
- Detention Suite Wall & Floor Coatings
- Railway Platform Re-Surfacing
- Cladding Coatings – High Performance
- Ballistic Protection Coatings & Linings
- Rapid Set Helipad Surfacing
- Green Roof Waterproofing
- Resin Bound, Bonded and High Friction Surfacing
- Roof Waterproofing – High Performance
- Liquid Flat & Pitched
- Waterproofing; Basement Tanking, Wet Rooms, Podium Decks
- Animal Enclosure & Pool Coatings
- Insulated Roofing System
- Asbestos Encapsulation
- Equine Industry, Horse Boxes, Flooring, Exercise Pools
- Film Industry Sets, Props, Tanks

## And So Much More!

We can assist you in solving your problems in a friendly cost-effective way! We pride ourselves in being problem solving and approach clients problems and requirements with a positive, can do attitude.

Contact us and we will be pleased to help.



## A SMALL SELECTION OF OUR CLIENTS.







# CHEMICAL INDUSTRY

Armour Coatings offer a range of products that have extraordinary, physical, mechanical and chemical resistant properties that make them excellent for waterproofing / sealing of all types of construction areas in the chemical industry from the highest ventilation duct to a deep pumping well.

Metflex SupaFlex is second to none for speed of application, with ultra-fast curing from 30 seconds which, makes it a perfect solution for waterproofing of all types of substrates for waterways or containment structures of any type.

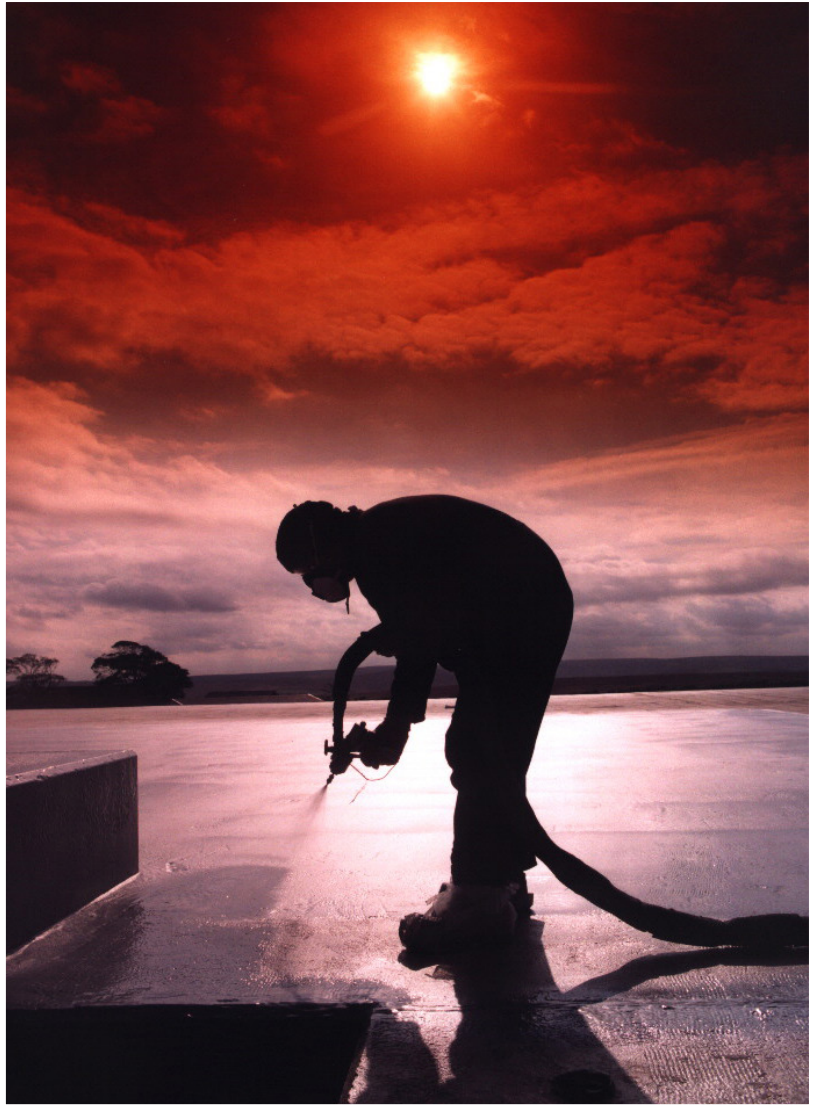
Some of the Metflex systems don't only have a certificate for drinking water approval, they are also suitable for the containment of other liquids like in the chemical, water and brewery industry.

Armour Coatings have significant experience in the utilities sector. We have worked in a wide range of industries from high security and complex nuclear areas to the gas and water industry (waste and clean water) to provide a pioneering solution to the problems they face. Some of our products include solutions for preventing chemical erosion and erosion caused by the weather and other environmental factors.

Our pioneering solutions extend the life of buildings, plant and structures and are chemically resistant to reduce the chance of catastrophic failure and are proven to work effectively in the most challenging of environments. Metflex SupaFlex is our most advanced coating system and is used widely in the nuclear industry as it has a proven track record that will outperform other products supplied by other manufacturers. We have over 40 years' experience in solving problems in construction, waterproofing and containment.







We have completed major works for the utilities sector within the UK, including the protection of wet wells for a large multi-national company we have completed lining out the clean and dirty water holding tanks at several water treatment works in England.

We have access to the world's finest coatings technologies and offer a full bespoke solution to your installation requirements. Armour Coatings have a range of protective coatings for liners for truck bodies, coatings with anti-ballistic protection properties or anti-corrosion protection are just a few uses of our industrial coating systems.

Metflex SupaFlex can be applied to all types bunds. Bunds are generally used around storage tanks or drum storage areas where flammable or toxic liquids are held. Alternative measures may be earth dikes (usually for very large tanks) Armour Coatings have a unique solution for lining out these sorts of bunds, sumps and interceptors. Bunds are also sometimes used within plant buildings for reactors and other process vessels.

Metflex products can be used for the exclusion, containment or the protection of plant and structures from water, gas or chemicals both alkaline or acid and hydrocarbons to minimise or prevent environmental damage or impact.

The Metflex SupaFlex systems have the advantage of fast waterproofing that offers excellent resistance to abrasion, wear, compression and tearing. Other qualities of Metflex SupaFlex are that its excellent thermal resistance, electrical insulation and water tightness, it also has excellent flexibility under low temperatures.

Armour Coatings have a range of cementitious products that can be applied. From active water stopping, tanking and drinking water approved products. Whether you need a sewage tank or manhole lining we can guide you through the process and supply the right solutions to ensure your successful outcome.

# Metflex™



# Metflex™

The type of products that form the Metflex range of products are many and varied.

Our flooring and wall coating systems range from standard single pack polyurethane resins for basic floor coatings, through to high performance polyurethanes, epoxies, and PMMA resins in various formats from solvented and solvent free, rapid set, high build, to self-levelling or trowelable flooring systems. Our range of products will deal with most eventualities.

Our wall coating systems range from high performance, rapid curing spray applied products that are extremely durable yet flexible but still tough enough to resist tiger claws and teeth and are environmentally suitable for lining prison cells, clean rooms, seclusion rooms, kitchens and food processing establishments or anywhere a high performance, tough, seamless and jointless, steam cleanable anti-microbial de-contaminable surface is required.

Roof coating systems from the Metflex range are varied from asbestos encapsulation system to full, flat or pitched roof, high pressure waterproofing system incorporating thermal insulation products or not as required. Our very high-performance spray applied roof waterproofing system comes with standard 25-year warranties and are BBA and Broof T4 certificated so that the client can be totally confident in utilising our products and expertise. All of our roof waterproofing systems are liquid based, meaning no joints or seams to open up and leak, detailing is easy around penetrations, upstands and parapet walls, gutter outlets etc, again using liquids mean no seams or joints to open up and leak in these difficult and leak prone areas.

All our liquid applied waterproof coatings achieve a very tenacious bond to the substrate onto which they are being applied. Some of our high-performance waterproofing products can be applied below 0°C onto damp or wet surfaces and still perform 100%.

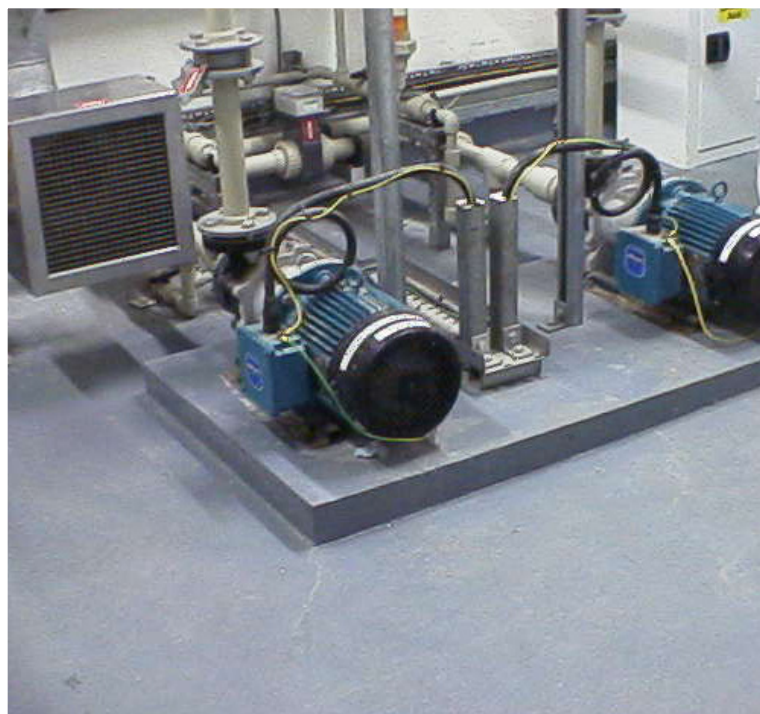
Sceptical?

Try It Out!

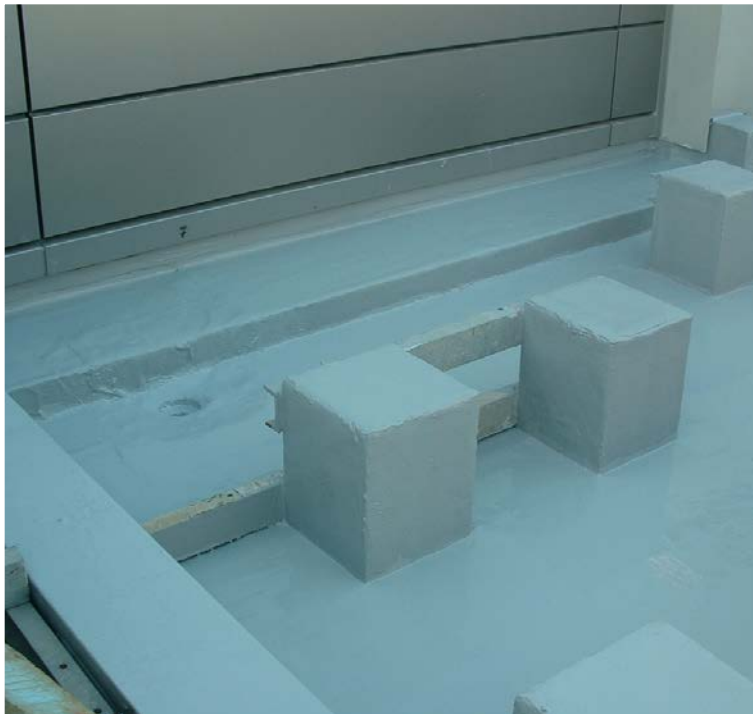
## Ancillary Products

As part of our service, we can undertake concrete repairs, resin injection to seal hydro active joints to prevent water or liquid ingress or egress.

Metal treatment products for anti-corrosion or chemical protection, ballistic mitigation system. Remote control spray application system for fragile or non-accessible roofs. Liquid tight coatings applied to geotextile liners to form bunds, lagoons, spill ways, run offs, ponds, fish farms etc, for a very quick and cost-effective way to produce water containment systems.









The high-performance products in the Metflex range are capable of being applied by roller, squeegee, notched trowel, brush or sprayer. They are two, three or four component products that from simple coatings to high performance screeds and renders, to a unique range of highly chemical, abrasion and puncture proof elastomeric, high build, instant set spray applied elastomeric membranes.

We offer the most time and cost-effective solution to your problem.



Metflex hot sprayed elastomers can be applied to intricate shapes as these inland waterway marker buoys demonstrate.

Simply cut from standard EPS (polystyrene) and the Metflex spray applied to give a very tough, impact resistant, highly visible and watertight coating to the marker buoys.

These were tested by our client for ballistic resistance with a 12-bore shotgun, fired from 8 meters away, to prove the shot did not penetrate the coating.

The shot simply bounced off, making our solution extremely suitable for inland waterway markers as they often suffer from vandalism of this type.





# TANK SKIRT, APRON & JOINT OVERBAND SEALING FOR CONTAINMENT BUNDS

Areas of Metflex on the tank apron showing scaffolding feet impressions from scaffolding used on the recent tank repair demonstrating Metflex's inherent toughness.

The tank is loaded and de-loaded continually. The Tank Skirt moves some 25mm vertically and some 50mm horizontally as this operation continues.

Metflex SupaFlex has performed 100% during the many movement cycles it has experienced over the last 24 years. The flexible Metflex skirt seal is totally intact and without fault. The Metflex applied to this tank skirt and apron and as a flexible over band seal to all expansion joints and



These photographs were taken in August 2005 after 5 years of use.

Full water integrity tests are carried out biannually with no leakage reported to date, the Metflex system is performing 100% as it was designed to do so.



# CASE STUDYS

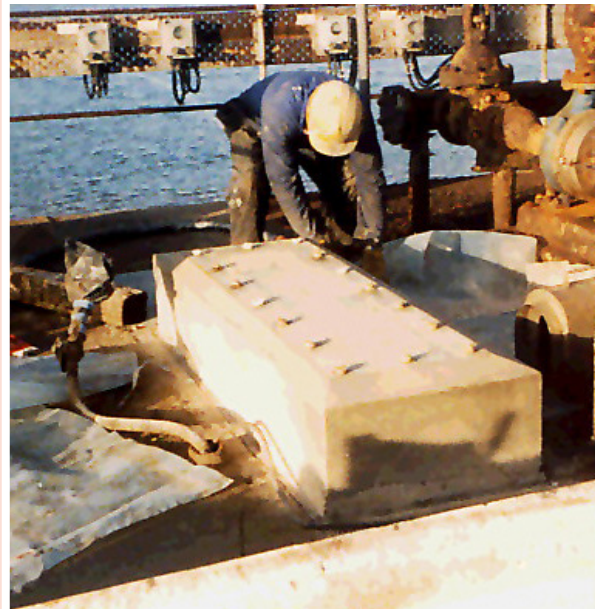
**Project:** Pump Base Plate, Brinefield Site, ICI North Tees Works

**Client:** ICI Plc, Wilton Works, Middlesbrough

**Problem:** The concrete and steel bed plate base on which the pump is bolted to is subject to brine solution chemical attack causing extensive corrosion.

**Solution:** Prepare the surface area by grit blasting. Patch repair the corroded concrete areas with Metflex Rapid Set Mortar, a rapid hardening, non-shrink mortar. Spray apply Metflex SupaFlex to nominal thickness of 2.0mm to both the steel plate and the concrete plinth..

**Result:** An instant hard wearing coating providing protection against chemical attack over dissimilar materials i.e. concrete and steel.



**Project:** Containment Bund

**Client:** Chemoxy International Plc

**Problem:** The concrete bund was cracked and leaking. Some areas were corroded from chemical attack.

**Solution:** Prepare the surface by grit blasting, patch repair corroded areas with Metflex Rapid Set Mortar. Spray apply Metflex SupaFlex at 2.0mm incorporating slip resistant aggregate into top surface

**Result:** A hard wearing, slip resistant, flexible membrane providing protection against chemical attack and providing total containment for spillages etc. hard wearing, slip resistant, flexible membrane providing protection against chemical attack and providing total containment for spillages etc.







**Project:** Storage Tank, Templeborough Rolling Mills, Rotherham.  
**Client:** British Steel Plc

**Problem:** The concrete water holding tank had developed a large number of cracks and fissures causing the tank to leak.

**Solution:** Grit blast all internal surfaces of the tank to clean and prepare substrate. Remove surplus grit and clean out all remaining rubbish. Spray apply nominal 1.5mm thickness Metflex SupaFlex. The base of the tank was severely contaminated and as such could not be cleaned. A geotextile membrane was mechanically fastened to the inner surface of the tank wall and floor and sprayed with Metflex to produce an insitu liner.

**Result:** An instant waterproof coating solving the leakage problem.



**Project:** Containment Bund Austerfield Sub Station  
**Client:** Yorkshire Electricity

**Problem:** Transformer oil was leaking into the bund and, due to cracking and leaking around cable ducts and the general porous nature of the concrete, the oil was seeping out causing potential environmental problems.

**Solution:** Spray apply Metflex SupaFlex to a thickness of 1.5mm totally encapsulating all items within the bund and preventing leakage of the transformer oil..

**Result:** An instant hard wearing, waterproof oil resistant, impermeable coating that can be returned to service immediately after spraying.



**Project:** Phosphoric Acid Containment Bund  
**Client:** Arizona Chemicals – Birtley

**Problem:** Phosphoric acid was leaking from the storage tank, attacking the concrete and contaminating the ground.

**Solution:** Spray apply Metflex SupaFlex as a liner, both protecting the concrete and preventing damaging leakage.



# CONTRACTING SERVICES

On site application can be carried out by our own team of expert technical staff. Where required, we can provide intensive contractor training to enable suitably qualified operatives to apply Metflex products.

Ongoing development on texturing and aesthetics means we can now provide almost any surface finish to suit the application and in virtually any choice of colourings. Metflex coatings can be as thin or as thick as required. Surface finishing can be as smooth or as slip resistant as needed or anything in between.

All these advantages yet Metflex products are cost-effective to apply. In fact, Metflex products can offer big savings over traditional methods and solutions.

Our highly experienced technical consultants can provide a no-obligation assessment of your particular application and supply in depth technical information on relevant Metflex systems to provide the ideal solution for your specific requirements.

Just get in touch and we can do the rest!

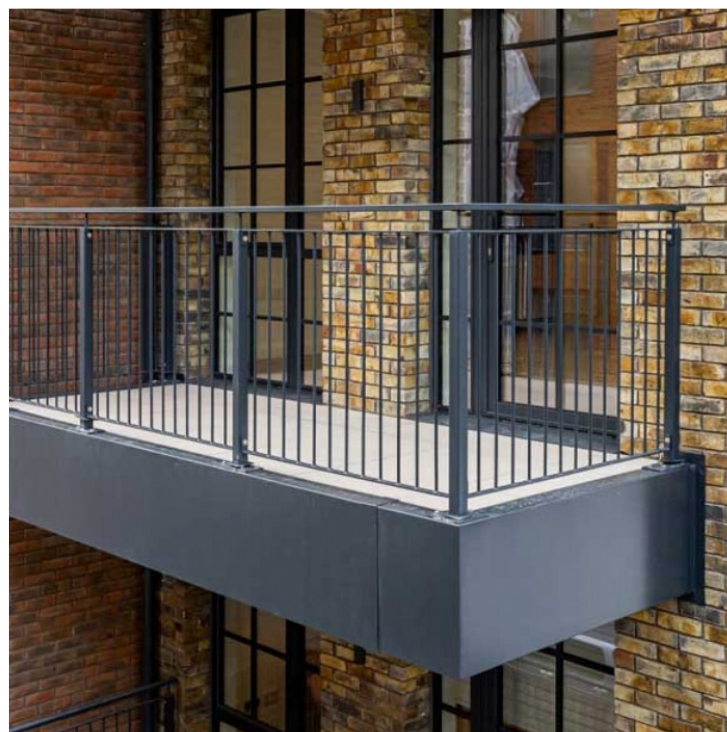
## OTHER AREAS OF WORK

From tactile paving tiles to railway bridge decks, loading docks and stadium terracing, nothing can beat Metflex product's for durability, speed of application and effectiveness.

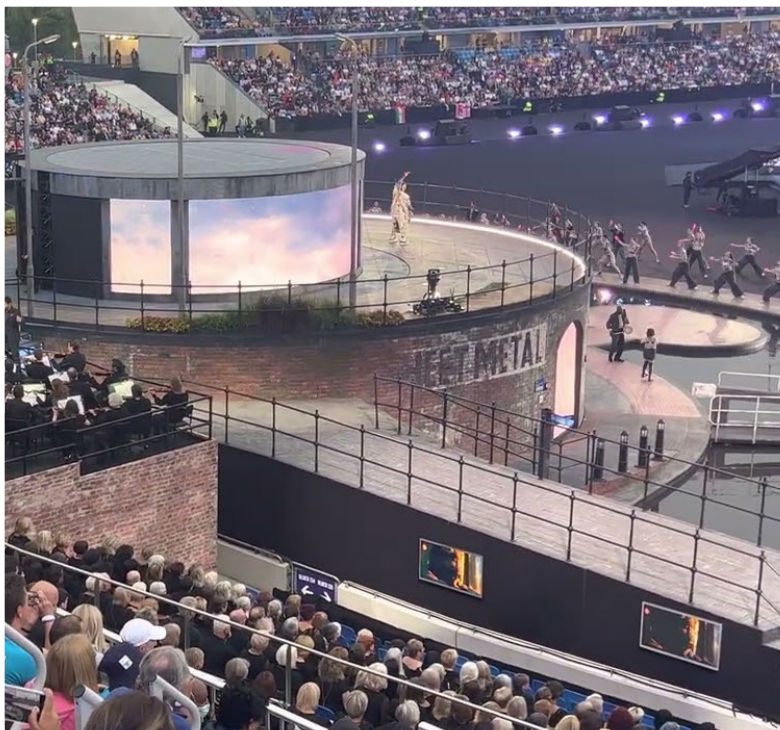
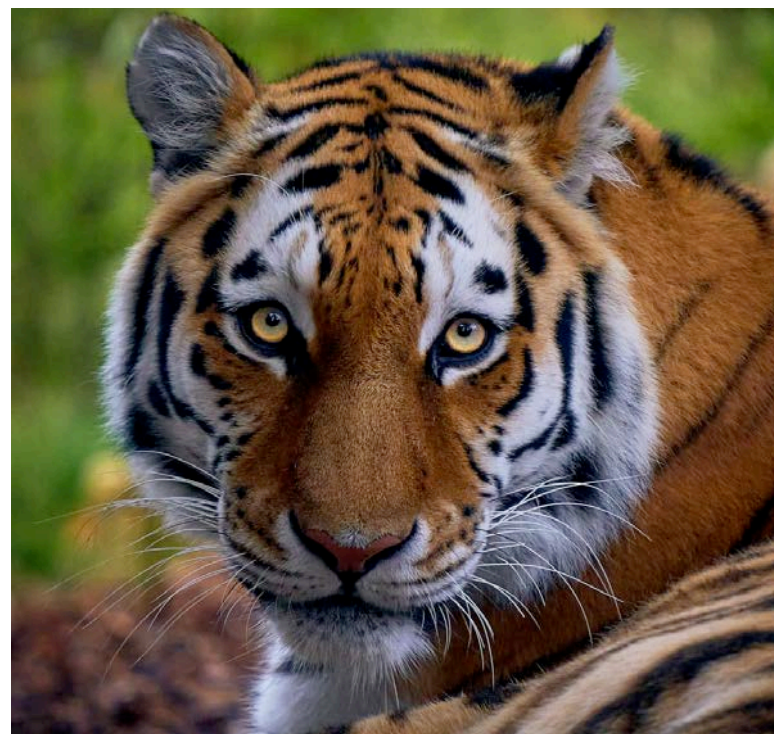
Above and below the waterline in marine applications for protecting steel, aluminium, fibreglass and timber found in boats hulls to pontoon floats and marker buoys.

Metflex products can be used for lining railway track beds, vans, dump truck buckets, horse boxes, animal transportation crates and so much more.

Metflex products can be used for flooring and carpark decking due to the rapid installation time and trafficking time. Metflex products are extremely durable and great for use in areas of high traffic, daily pressure washing and intense cleaning regimes.







## TECHNICAL SUPPORT

Our specialist technical consultants can provide in-depth information on specific systems and applications and can provide on-site assessments to advise on any particular issues and the use and suitability of specific systems for individual projects.

Specifying the correct membrane for your chemical containment application could be the most important decision you take.

For full details of on our waterproof, chemical resistant, anti-skid, and durable solutions contact us today.





# Metflex™

**WHEN THE  
WEATHER GET'S  
TOUGH  
METFLEX  
KEEPS GOING.**

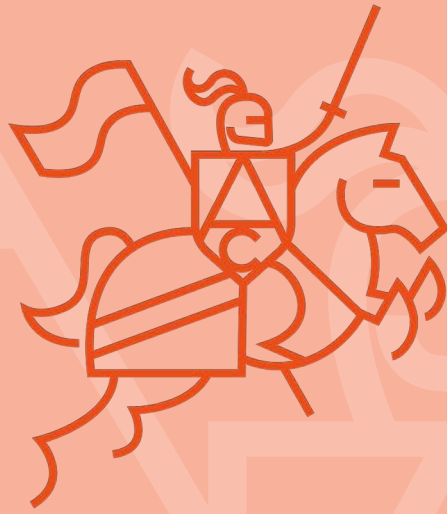
Complex shapes are not a problem with Metflex products. From prototypes to themeing, anti-slip and tactile tiles - Not a problem with Metflex products.

Metflex products have a wide range of uses, limited only by your imagination. From protecting steel pipes from corrosion to asbestos encapsulation, aquarium lining to roof waterproofing, bridge, rail and tunnel coatings to tank coatings and linings, on old or new tanks extending the life of older tanks and offer structural characteristics as well.

Metflex products have demonstrated their ability to last longer than paints and epoxies. The maintenance services and costs associated with maintaining failing paints and epoxies are significantly reduced.







# ARMOUR COATINGS<sup>LTD</sup>

Armour Coatings Limited's passion lies in its ambition to deliver product and projects of exceptional and outstanding value and performance, for all our customers. We push the boundaries of conventional thinking and technology with our innovative range of products and solutions.



## WORK WORLD WIDE

Armour Coatings Ltd works all over the world. We have completed projects in HongKong, Tenerife, France, Belgium to name a few.



## 25 YEAR

Armour Coatings Ltd can offer a manufacturers 25 year water tightness guarantee.



## STAFF

All Armour Coatings Ltd's operatives are fully trained to carry out their work professionally and up to our high standard.



## JOB SIZE

No job too big or too small.



# YOUR SWORD & SHIELD WHEN IT COMES TO COATINGS



**ARMOUR  
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