

# **ABOUT US**

USL Structural Protection manufacture and supply specialist infrastructure products to support, preserve and enhance critical assets, specifically in the bridge and rail market spaces.

We are a global organisation, manufacturing and supplying materials from our Head Quarters in Washington, UK. With strategically located regional offices and specialist contractor partners throughout mainland Europe and beyond, we have exceptional global reach.

# **OUR COMMITMENT TO YOU**





# PRODUCT & SYSTEM







# **READY REP IRONTEC**

# Rapid Curing Flowable Concrete Repair, Ironwork Reinstatement & Re-profiling Mortar

Matacryl® Ready Rep Irontec is used on infrastructure applications including surface restoration, ironwork reinstatement and anchoring or setting of steel components. Fast curing and non-sensitive to extreme temperatures, Matacryl Ready Rep Irontec is preferred by applicators, structure owners, and civil engineers for new construction and restoration projects. Matacryl Ready Rep Irontec is corrosion inhibiting and provides long term dimensional stability.



# **SYSTEM BENEFITS**



**Cures in one hour or less** for fast return to service of construction areas



Installs in extreme temperature conditions

even below freezing down to -10°C (14°F)



Compatible with surrounding substrates



### Cold-applied

requires no specialised equipment to install



# chemicals, punctures and wear abrasion

High compressive strength



### Requires no curing compounds

or complicated methods of other fast-set

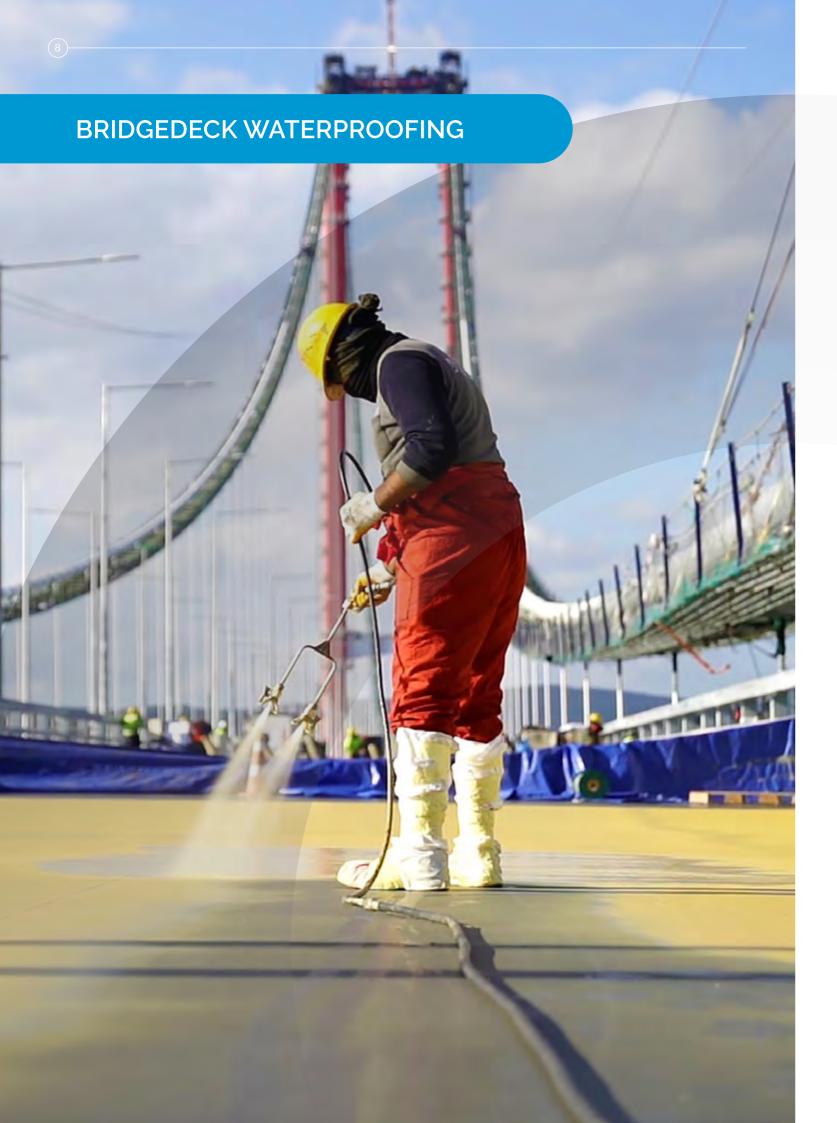
Impermeable and highly-resistant to



High-friction surface capable with suitable aggregate broadcast

**(**) +44(0)191 416 8360

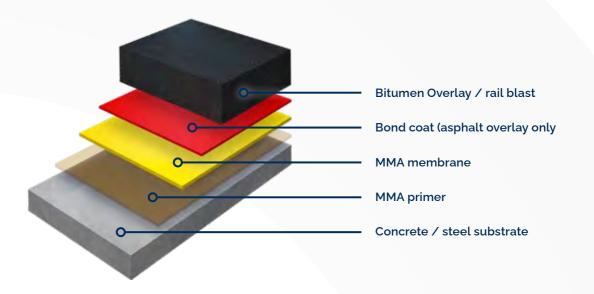




# **BRITDEX MDP**

# **MMA Waterproofing System**

A Methyl Methacrylate (MMA) waterproofing system offers a 100% effective seamless bridge deck waterproofing membrane and the design of the system means that it is extremely durable resulting in its suitability for application to a variety of surfaces and structures. Concrete deck surfaces should have a class U4 formedand be at least 7 days old with a maximum surface moisture content of 6%. Steel decks should be SA2.5.



# **SYSTEM BENEFITS**



Durable effective protection against



Quick & easy application



Rapid set time



Certification- BBA & HAPAS approved



Seamless coating



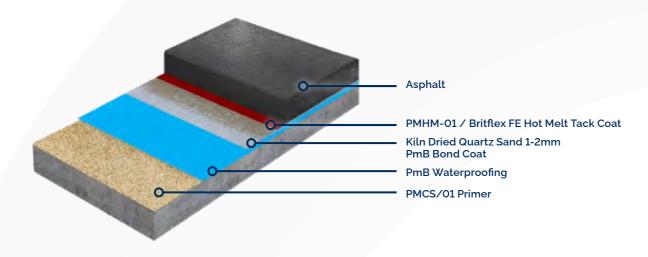




# **PITCHMASTIC PMB**

### **PU Waterproofing System**

PmB forms a flexible, chemically resistant seamless membrane tough enough to outlast the design of many structures. PmB has exceptional bond strength to all commonly used substrates, has excellent crack bridging capability and a life expectancy in excess of 30 years. Tested and approved throughout the world to the highest standards, recently gaining European Technical Approval (ETA).



# **SYSTEM BENEFITS**



**Durable effective protection against** corrosion



Significant crack bridging capabilties



Rapid set time



Excellent global track record



Seamless coating

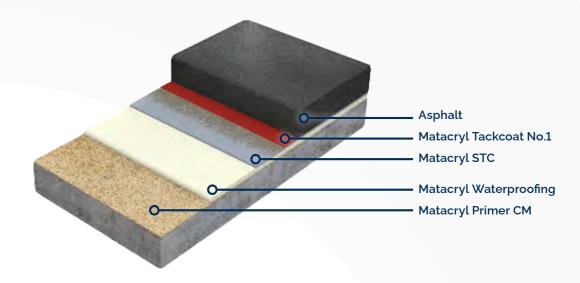


ETA Certified, BBA & HAPAS approved.

# **MATACRYL WPM**

### **PUMA Waterproofing System**

The Matacryl WPM System bonds with the substrate and asphalt overlay to enhance and extend bridge service life. A second bitumen-based tack coat layer may be used when required by specification or when recommended by the manufacturer. Matacryl WPM can be used on new bridge construction, routine maintenance or bridge rehabilitation where uneven or irregular surface profiles exist. Matacryl WPM systems recently gained European Technical Approval (ETA).



# **SYSTEM BENEFITS**



**Durable effective protection against** corrosion



Installs in extreme temperature conditions, down to -20degreesC



Rapid set time

Promotes fast installation, lower labour costs and efficient handover to next construction phase.



Manual or Spray applied



Seamless coating



ETA Certified, BBA & HAPAS approved.





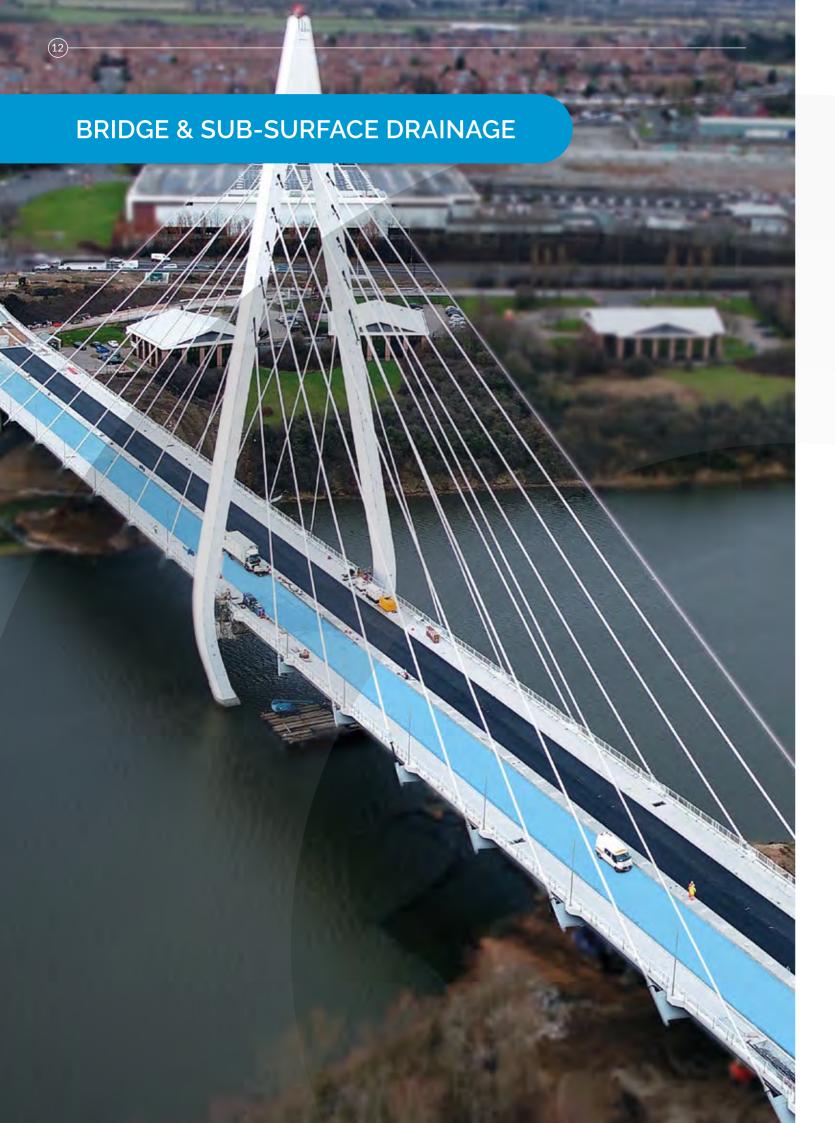












# **ENVIRODECK**

### Kerb Bridge Drainage System

A combination of innovative design and a composite non-metallic material gives a one-piece unit that is lighter and stronger than traditional systems. Envirodeck provides both surface drainage and sub-surface drainage. As advised by Highways England this is recommended to prevent serious damage to the waterproof membrane and pavement, and helps to avoid costly and disruptive repairs.



# **SYSTEM BENEFITS**



#### Reduced Bridge Load

Made from a composite material that reduces unit weight by over 50% compared to metallic units.



#### **Anti-slip Surface**

Unique anti-slip pattern that is impossible to achieve with metallic units.



**Superior Appearance-** Made from a composite material that does not rust. Range of colours available.



**Quality Assurance-** Meet all the legal and regulatory requirements under both UK and European law.



Complete Product Range- Available in a wide range of widths and depths, as well as half-battered or 45 degree splayed styles.





# **DRI-DECK**

### **Sub-surface Drainage**

The Dri-deck drainage unit provides sub surface collection at two levels. Water is collected immediately above the waterproofing membrane annd also from any bituminious protection such as Red Sand Asphalt or regulating course. The Dri-deck channel provides continuous sub surface water collection along kerb lines and/or can be placed transversely along the deck.













# **SYSTEM BENEFITS**



#### **High Strength Ductile Iron Channel**

Dri-deck channel units come in slotted one-metre sections manufactured in graphite iron



#### **Superior Appearance**

Fully compatible system of pipework available



#### **ABS Heat Resistant Outlet Fittings**

Made from high strength thermoplastic material that is heat resistant and highly durable under pressure



#### Lightweight

Upto 50% lighter than other products on the market and fall within the new manual handling guidelines, avoiding workplace injuries.

# HONEL

### **Spot Drainage System**

The 302/51 and 302/2 through deck drain units are designed to provide 'spot drainage' points wherever needed or to be used in conjunction with Honel 325 channel system to provide a wider area of water collection. Corresponding 325 straight outlets will fit into the 302/51 or 302/2 funnels to create a comprehensive sub surface drainage solution.











# **SYSTEM BENEFITS**



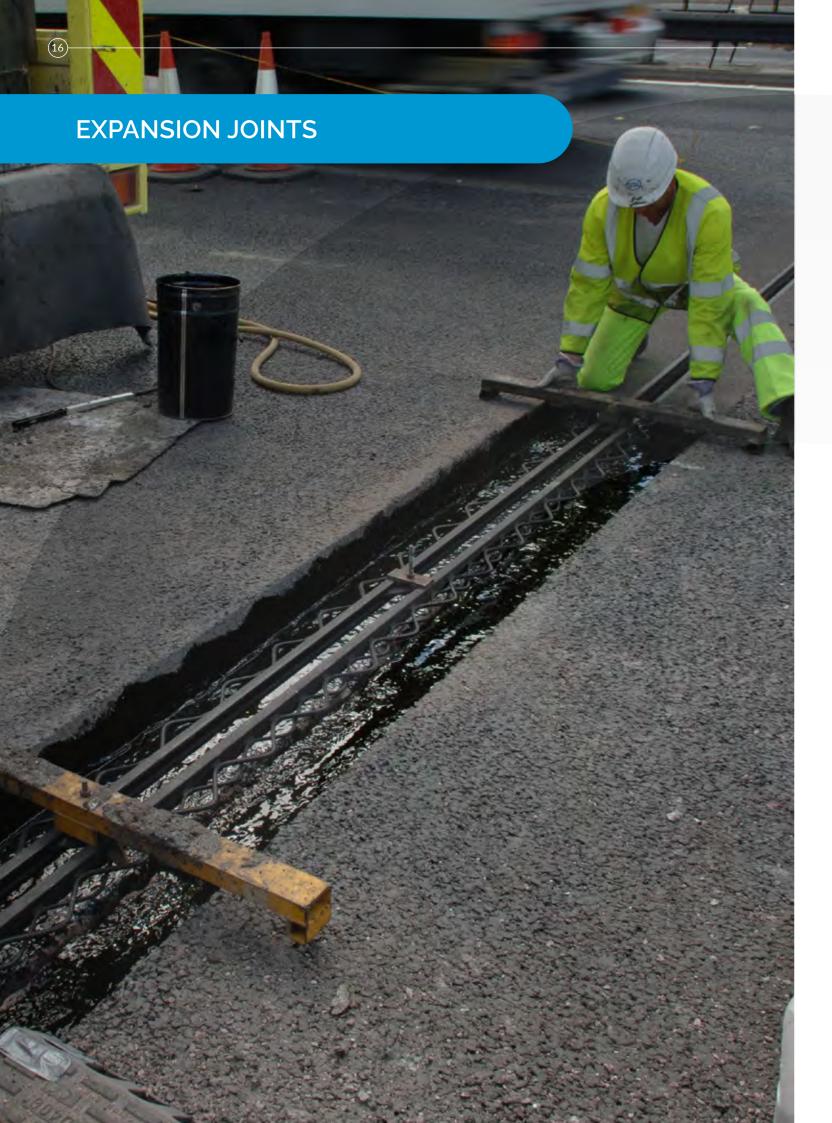
Prevents the common issues caused by sub-surface water ingress

Hence reducing the requirement for costly repairs.



Enables collection & direction of water flow at the membrane surface.

This minimizes the need for through deck drain points and subsequent collection pipes.

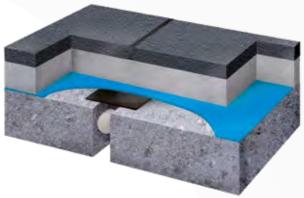


# **UNIFLEX**

### **Buried Expansion Joint**

This system uses a butyl rubber membrane, bonded to the substrate with Uniflex epoxy Adhesive to provide an efficient and permanent expansion joint that is easily installed. The system will accommodate a variety of conditions from those experienced on an asphalt-covered traffic-free roof, to bridge decks with sheet membrane, spray on coating or asphalt waterproofing, also it can be used with two layer mastic asphalt or brick paving systems.

The Uniflex membrane is prepared from specially developed butyl rubber compound that is tough, weatherproof, flexible and can withstand up to 400% elongation. The Uniflex epoxy adhesive has been designed specifically for bonding Uniflex to concrete, asphalt and other surfaces to make the system effective. The Uniflex membrane is normally supplied in 26m² rolls, requiring adhesive, closed cell foam, and steel plates (if required) are all part of the different systems we can provide.



# **SYSTEM BENEFITS**





Adaptable to numerous applications



Capable of 400 % elongation



When used with Uniflex Adhesive it offers excellent adhesion to most substrates in both horizontal and vertical applications



Accommodates cyclic movement



Chemically inert



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# **FEBA**

### Flexible Plug

We offer three grades of asphaltic plug joint systems. The binder is selected depending largely upon climatic conditions, bridge movement factors, cross-falls and the nature of traffic is also considered.

**FEBA D** - is a standard asphaltic plug joint which provides a flexible, waterproof joint with excellent ride quality for users and noiseless characteristics for minimal impact on the environment. Asphaltic plug joints are recognised as being suitable for a maximum design movement of  $\pm$  20mm horizontally and

± 1.5mm vertically and are ideal for use on bridges with low traffic volumes such as B roads.

**FEBA HM** - is a high modulus asphaltic plug joint suitable for low to medium movement of ± 20mm on heavily trafficked highway bridges. FEBA HM is a special blend of bitumen, polymers, fillers and a surface active agent, formulated to combine good fluidity at process temperatures with low temperature flexibility and ambient temperature slump control. The use of basalt aggregates (BS EN 13043) ensures excellent load bearing capacity and high resistance to wheel tracking. This amalgamation of a highly interlocking aggregate allows the system to provide excellent anti rutting characteristics.

FEBA HC - A bituminous asphaltic plug joint which has been developed for use in hot climates.

NOTE: Design, construction and installation criteria remain the same for all joint types.



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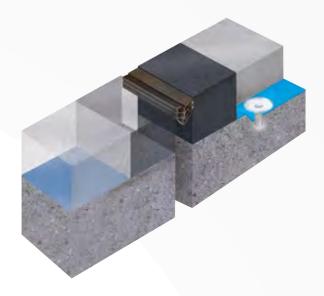
# **BRITFLEX NJ**

### **Surface Mounted Nosing Joint**

A surface mounted nosing joint with an elastomeric insert bonded to the rapid curing elastomeric compound known as Britflex® Resin Mortar.

The Britflex® NJ system can only be used in the situation where the gap at carriageway level does not exceed 65mm, for gaps above 65mm the 'BEJ' system would be used.

The Britflex® NJ joint is an ideal system for maintenance situations and has been developed to provide a whole life economic solution for applications where asphalt plug joints are unsuitable.



# **SYSTEM BENEFITS**



**Rapid Installation** 



Versatile



Substantially waterproof



No drilling of deck



No mechanical fixings



Quiet comfortable riding characteristics



# TRANSFLEX MAT

### **Expansion Joint System**

The Transflex expansion joint system is for use on highway bridge decks on all classes of roads and motorways. Britflex Resin Mortar is included in SA1 as an approved material for transition strips to all types of expansion joint. Transflex bridge joints comprise of steel angles and a steel bridging plate system encased in a flexible elastomer.



# **SYSTEM BENEFITS**



Movement accommodation up to 330mm



Factory vulcanised kerb and skew kerb units to special order



Accommodates skew movement



Membrane system included for maximum waterproofing



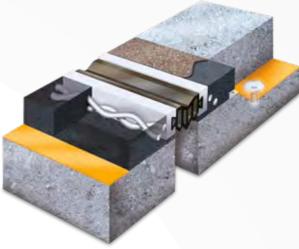
Corrosive resistant elastomer casing

# **BRITFLEX BEJ**

### **Modular Expansion Joint**

A surface mounted mechanical system, with an elastomeric insert between two metal runners/carrier rails. Set into a rapid curing resin compound known as Britflex® Resin Mortar. The polyureide resin provides unrivalled anchorage to the deck due to its remarkable bonding qualities, meaning that no mechanical fixings are required.

'BEJ' expansion joints incorporate cellular elastomeric inserts which are load bearing enabling a range of movement to be accomodated, upto 150mm. The Britflex® BEJ Expansion Joint system has worldwide approvals for use on bridge decks on all classes of roads and motorways. The Britflex® Resin Mortar is also an approved material for transition strips to all types of expansion joints.



# **SYSTEM BENEFITS**



Rapid on site assembly



Adaptable to numerous applications



Minimal disruption to traffic



Britflex® Mortar provides excellent bonding versatility, offering equally strong bonds to both concrete and steel bridge decks allowing phased work outside of peak traffic hours.



Minimised future maintenance costs