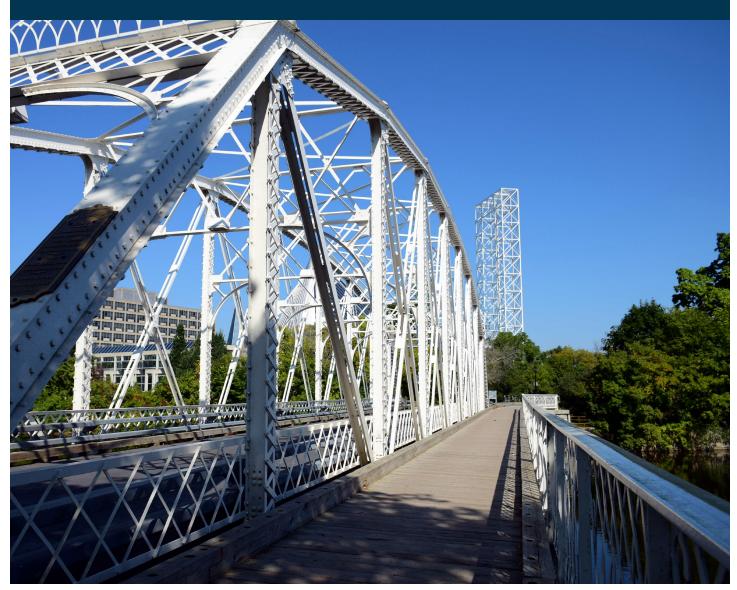


# **Highways & Bridges**

- Maintenance & Repair
- Deck Waterproofing
- Overlays
- Coatings
- Expansion Joints

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## **About Us**



FPT Infrastructure manufactures and markets a portfolio of integrated solutions that expertly restore existing structures and maximize the life of new construction. Serving bridge and highway, rail, aviation, transit, water and power market segments, FPT Infrastructure supports, fills, coats, reinforces, seals, and protects the vital infrastructure that moves and connects us.

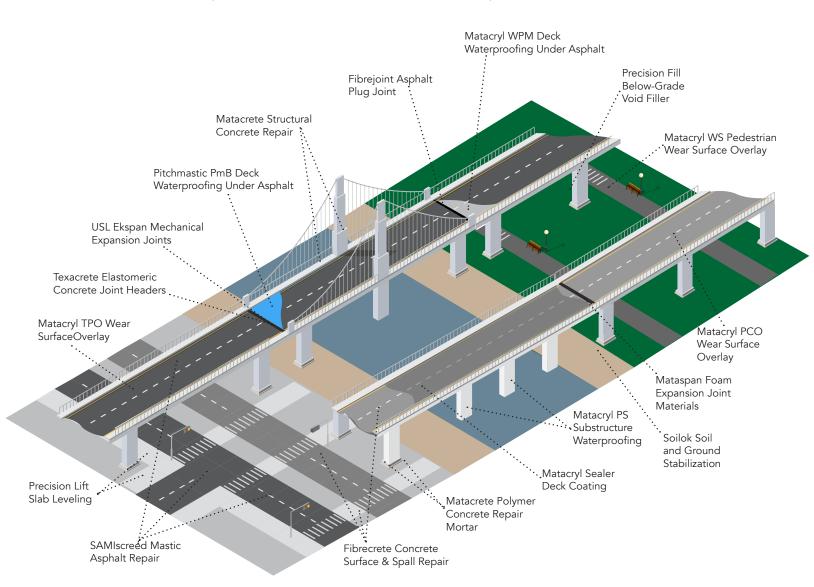
Integration is key. Our solutions are designed to work together for efficient application and seamless system performance. Our products are used in every climate and temperature zone in North America and perform under the most extreme conditions — from blistering heat in Laredo, Texas, to winter in Thunder Bay, Ontario, and everything in between.

FPT Infrastructure partners with infrastructure owners and civil engineering experts across North America to design new materials and systems to meet their unique needs. With an abundance of global installations, our professionals possess the material expertise and application experience to deliver value and performance on every project.

# **Highway & Bridge Solutions**

Millions of miles of highways and hundreds of thousands of bridges span North America. FPT Infrastructure offers a comprehensive portfolio of solutions to protect, restore and sustain these vital elements of transportation. While we constantly adapt our products and systems for new applications, our most prevalent are shown below and include:

- > Hot-applied concrete repair materials for spalls, cracks and surface defects page 4
- > Hot-applied asphalt mastic repair materials for large cracks, potholes, and other distresses in asphalt and concrete page 5
- > Cold-applied polymer and cementitious concrete repair materials for horizontal, vertical and overhead structures pages 6 7
- > Leak sealing, soiland ground stabilization, levelling and void-filling polymers and grouts pages 8 9
- > Fluid-applied waterproofing membrane systems pages 10 11
- > Performance-specific coatings and wear surface overlays for pedestrian and vehicular traffic surfaces pages 12 16
- > Mechanical and foam expansion joint systems and joint header materials pages 17 19



## Maintenance & Repair

### Fibrecrete G:

Fibrecrete G is a hot-applied, flexible material for partial and full-depth concrete repair. It is formulated with polymer-modified resins, fiberglass, mineral fillers and high-quality aggregate. In addition to concrete paving repair, Fibrecrete G is ideal for pedestrian surface, tarmac, bridge deck, expansion joint and concrete fixture repair.

Fibrecrete G replaces traditional cementitious repairs that fail due to their stiffness. It is a load-transferring repair with superior tensile strength and flexibility compared to rigid concrete repairs. This allows Fibrecrete G to accommodate movement due to thermal expansion and contraction, and vibratory movements, making the repair a long-term solution for highway maintenance products.

#### Key performance features:

- Cures in one hour or less for fast return to service, even at low temperatures
- Resistant to water intrusion and a broad range of deicing salts, bases and organic materials
- Alternative to costly, full-panel concrete replacement to extend road service life
- Bulking stone adds flexibility to repair and speeds cooling; topping stone adds UV resistance and non-skid surface

#### **Fibrecrete Repair Cross Section**



Pre-mixed Aggregate

Bulking Stone



#### Interstate 20

**Owner:** Georgia Department of Transportation **Solution:** I-20 is the main east/west highway from Atlanta to Augusta. Fibrecrete G was applied to longitudinal cracks in drive lanes, exit and entrance ramps of the concrete slab road surface. The department avoided weeks of lane closure time and saved thousands of dollars in slab replacement costs.





### **SAMIscreed**

SAMIscreed is a hot-applied, flexible repair mastic for asphalt pavement defects. It is a highly-modified asphalt binder that is premixed with small aggregates, graded filler, steel fibers and recycled tire rubber. The factoryblended mixture provides more structural integrity than traditional hot-pour crack sealers. Due to its flexibility, it is less likely to crack under the stress of freeze-thaw cycles than HMA repairs and cold mixes. SAMIscreed is a one-part, screed-applied system, suitable for all types of bituminous applications, including surfacing. Its skid resistance is designed to meet or exceed the surrounding surface. High-friction grades are also available.

SAMIscreed applications include cracks larger than 1.5" wide, joint reflection where the width varies from cracking to spalling, cold joint raveling, pavement delamination where mobilizing a paving crew is too expensive, highway shoulder joint separation, transition joints, potholes and rumble strip remediation. With no application temperature restrictions, SAMIscreed can be used throughout the winter to maintain safe driving surfaces on roads.

#### Key performance features:

- > Rapid curing for traffic reopen as soon as 30 minutes after application
- > Application throughout the year subject only to dry surface conditions
- > Effective sealing properties to stop ingress of water
- > Cost effective extends the service life of asphalt and reduces maintenance expenses
- > Less preparation and smaller installation crews compared to traditional repair methods



#### US Route 271

**Owner:** Texas Department of Transportation **Solution:** Converting highway shoulders to driving lanes often involves milling and repaving at substantial material cost, labor expense and road closure time. In this application, SAMIscreed was hot applied to rumble strips, creating a level, skid-resistant driving surface for new right turn lanes on Route 271.



## Maintenance & Repair

### Matacrete<sub>TM</sub> Ready Rep

Ready Rep is a rapid cure, ultra high-strength, MMA-based concrete patch, repair and re-profiling mortar. The kit includes a resin binder and a dry mix of specially-graded quartz aggregate and powder additives. Ready Rep is preferred by contractors, structure owners and civil engineers for new construction and restoration projects including vehicular and pedestrian surface restoration, spall repair, and anchoring or setting of steel components.

### Key performance features:

- > Cold-applied and non-sensitive to extreme hot or cold temperatures
- > Cures in one hour or less for fast return to service; requires no curing compounds or methods
- Two temperature grades allows for installation in extreme temperatures, even below freezing: Ready Rep LT -4 to 32 °F (-20 to 0 °C) and Ready Rep N 32 to 86 °F (0 to 32 °C)
- > Achieves compressive strength of over 11,000 psi in one hour; over 14,000 psi in 7 days
- Bonds to Matacryl waterproofing and overlay systems for seamless integration of repairs and full deck structure restoration
- > High-friction surface capable with suitable aggregate broadcast
- > May be extended with fine quartz sand or larger quartz aggregate for full-depth repairs

#### Quebec Bridge

### **Owner:** Province of Quebec

**Solution:** The Department of Roads chose Matacrete Ready Rep for the repair of expansion joint headers on the Quebec Bridge. With daily traffic volume over 90,000 vehicles, Ready Rep's rapid cure time and ultra-high compressive strength met the strict requirements of the repair. Lanes were closed to traffic at dusk and reopened before sunrise, one and half hours after the completion of the second expansion joint.







### **Matacrete**<sub>TM</sub> Cementitious Repair Mortars

FPT Infrastructure offers a variety of concrete repair solutions with Matacrete cementitious products. Type of repair, application conditions, return to service and structure use will determine which products are best for your project.

**Matacrete Bedding Mortar** is a single-component, rapid-setting repair mortar for use on concrete and masonry surfaces including curbs, gutters, columns and piers, precast panels and overhead patching. It is resistant to freeze-thaw cycles and deicing salts.

**Matacrete Rapid Set** is a single-component, rapid-hardening, low-shrink, micro-fiber reinforced repair mortar for projects that require quick return to traffic or a non-breathable coating within hours. Typical applications include trafficable repairs on bridges, loading docks, roads and highways, and vertical and overhead form and pour applications.

**Matacrete HB Mortar** is a single-component, quick-setting, low-shrink repair mortar formulated with unique polymers and fiber reinforcement for damaged and deteriorating vertical and overhead concrete repairs. Its integral corrosion inhibitor and low permeability help protect rebar.

**Matacrete PM Mortar** is a polymer-modified, cement-based mortar formulated for repairing defects in concrete and masonry surfaces from featheredge up to 1". It may be used for the repair of small holes, honeycomb and spalled areas on interior and exterior applications.

**Matacrete HP Concrete** is a versatile, single-component, microsilicamodified repair mortar that contains an integral corrosion inhibitor for concrete repair projects of all types. It is a high-strength material with excellent freeze-thaw resistance for high-performance.

**Matacrete Flowable Concrete** is a flowable, single-component, polymermodified, cementitious repair mortar containing silica fume and a corrosion inhibitor; capable of horizontal, full-depth repairs or vertical and overhead formwork repairs on walkways, bridges, tunnels, dams, columns, and piers.

**Matacrete Sprayable Concrete** is a single-component repair mortar applied by low-pressure spray or hand trowel for structural concrete repairs. Its formulation of portland cement, graded aggregates, unique fibers and polymers increase adhesion, strength and sprayability. Sprayable Concrete is used for vertical and overhead repairs on bridges, tunnels, and waste water structures like manholes, pipelines and dams.



Matacrete Product	Chemistry	Repair Type	Placement	Thickness	Application Temperature	Cure Time	Compressive Strength (28 day)
Bedding Mortar	Cementitious	Vertical / Overhead / Horizontal (light-duty)	Hand-applied	Up to 4" extended	> 45°F / 7°C	20 min	5,500 psi
Rapid Set	Fiber-reinforced, cementitious	Horizontal	Hand-applied	Up to 6" extended	> 35°F / 2°C	20-40 min	10,500 psi
HB Mortar	Fiber-reinforced, corrosion inhibiting	Vertical / Overhead	Trowel-applied	Up to 4" or 6" extended	> 45°F / 7°C	35 min	6,000 psi
PM Mortar	Polymer-modified, cementitious	Horizontal	Hand-applied	Featheredge to 1" depth	> 40°F / 4°C	1-2 hours	3,500 psi
HP Concrete	Microsilica-modified, corrosion inhibiting	Horizontal / Vertical / Overhead	Pour or pump	Up to 6" or full-depth extended	> 45°F / 7°C	4 hours	8,800 psi
Flowable Concrete	Polymer-modified, corrosion inhibiting	Horizontal / Vertical / Overhead	Pour or pump	Up to 3" or 6" extended	> 40°F / 4°C	6-7 hours	7,800 psi
Sprayable Concrete	Fiber-reinforced, NSF approved	Vertical / Overhead	Spray or trowel- applied	Up to 2" depth	> 40°F / 4°C	2 hours	8,500 psi

## Maintenance & Repair

## **Prime Flex**<sup>TM</sup> Leak Sealing

FPT Infrastructure offers Prime Resins® Prime Flex series of products for leak sealing projects. These products range from cutting-edge acrylate resins to hydrophilic and hydrophobic polyurethane grouts to serve a variety of applications including leak sealing on road and bridge structures and ancillary components including manholes, storm sewers, tunnels, retaining walls, box culverts, and below grade vaults, walls, pits or floors. Product selection considerations:

- > Volume of leaks (weeping or gushing)
- Size of crack or defect
- > Accessibility of the site and environmental conditions
- > Expansion rate, set time and viscosity of the grout
- > Physical properties of the reacted grout

A number of Prime Flex variants have been independently tested and verified to meet NSF/ANSI Standard 61 for contact with drinking water, making them ideal for water treatment, transport, and storage structures. The eco-friendly designation also makes these a great choice for work on seawalls and near wetlands or other environmentally sensitive areas. For structural repairs, a full line of epoxy resins is available.



Product	Chemistry	Repair Type	Activation	NSF/ANSI 61
Prime Flex 910	Single-component Polyurethane	Below-grade structure and underground water flow sealing, soil/sand stabilization	Water-activated, requires Prime Kat Catalyst	N/A
Prime Flex 920	Single-component Polyurethane	Gushing leaks, wide gaps in concrete (no movement)	Water-activated, requires Prime Kat or Kick Fast Kat Catalyst	Compliant
Prime Flex 940	Single-component, Flexible Polyurethane	Seal actively leaking joints and cracks in con- crete structures	Water-activated, requires Prime Kat or Kick Fast Kat Catalyst	Compliant
Prime Flex 900 XLV	Single-component Polyurethane	Seal actively leaking joints and cracks in con- crete structures	Water-activated, no catalyst required	Compliant
Prime Flex 985 LX 10	Two-component Polyurethane	Undersealing and stabilizing concrete slabs	Two-component mix activiated; hydro-insensitive	N/A
Prime Flex 985 LX 20	Two-component Polyurethane	Undersealing and stabilizing concrete slabs	Two-component mix activiated; hydro-insensitive	Compliant
Prime Flex 985 5.0	Two-component, Cartridge- delivered Polyurethane	Undersealing and stabilizing concrete slabs	Two-component mix activiated; hydro-insensitive	N/A

### **Prime Resins Slab Lifting and Soil Stabilization**

Injecting structural polyurethane foam into the voids beneath concrete slabs can stabilize them without excavation or the added weight of cement, which can aggravate an existing soil settlement issue. FPT Infrastructure offers Prime Resins Precision Lift® polyurethane foams that lift and support slabs, stairs, footings, or foundations, putting them back to their original position. Precision Lift foams are ideal for infrastructure applications where access to the site is difficult and rapid return to service is needed. Precision Fill<sup>TM</sup> may be used in conjunction with Precision Lift to fill voids below the concrete slab before lifting occurs. It is a two-component, low viscosity foam with slow and steady reaction time. With high expansion and high strength characteristics, it bonds to both soil and concrete to stabilize foundations and mitigate the cause of uneven settlement.

For large scale soil stabilization, FPT Infrastructure offers Soilok®, with strength-adding, water-tight encapsulation capabilities. Over time, decomposing soils, erosion, freeze-thaw cycles and groundwater migration can alter concrete foundations and cause instability. Soilok is a super low viscosity grout that penetrates fine silts, sands, course sands and top soil to the desired depth, then reacts to bind together whatever it contacts. Soilok may be used as a singlular solution or in combination with polyurethane grouts for stabilization projects on earthen dams and levees, bridge, highway and rail embankments, tunnelling operations and curtain grouting.



### Old Redwood Highway - US101 Owner: Caltrans

**Solution:** Uneven slabs on US101 in Healdsburg were bumpy and noisy for commuters. Drops up to 2" deep were mitigated with Precision Lift. Adjacent panels were leveled to within 1/8" of each other. The speed of application and curing meant only one lane each of the north and south bound highway needed to close at a time.



# **Deck Waterproofing**

## Matacryl® WPM

Matacryl WPM is a cold-applied, liquid membrane system for use under asphalt overlays to provide heavy-duty waterproofing, corrosion inhibition and tenacious bond to asphalt. The chemistry is based on polyurethane methyl methacrylate (PUMA) hybrid polymer technology, and exceeds the performance of traditional MMA as well as conventional epoxy and polyurea resins. The adhesive quality of the polymer ensures tenacious adhesion to the substrate and an exceptional chemical bond between layers. Matacryl delivers superior, long-term performance by protecting the substrate from the extreme weather, chlorides, deicing salts, chemicals, gasoline and oils.

#### Matacryl WPM with Asphalt Overlay

### Key performance features:

- > Available in spray and manually-applied grades to suit job site conditions
- Installs at a wide range of ambient and substrate temperatures -4 to 95 °F (-20 to 35 °C) – to extend the construction season
- Chemically inert; does not require hazmat precautions for disposal once cured
- Rapid cure time promotes fast installation, lower labor costs and efficient handover to next construction phase
- > Cold liquid-applied; no heating or conditioning of resins is required
- Matacryl systems are only installed by authorized and approved contractors trained by FPT Infrastructure



Burgoyne Bridge

**Owner:** Ministry of Transportation of Ontario **Location:** St. Catharines, Ontario **Area:** 83,960 ft<sup>2</sup> (7,800 m<sup>2</sup>)

**Solution:** Erected over two years, the Burgoyne Bridge in the Region of Niagara spans Welland Canal. The 2,830ton steel superstructure includes Matacryl WPM under vehicular and sidewalk paving to contribute to achieving the bridge's more than 80-year design life.

## **Deck Waterproofing**

### **Pitchmastic PmB**®

The PmB bridge deck waterproofing system contains the technically advanced PmB membrane, a two-part, spray-applied, durable protection and waterproof coating that offers ultimate crack bridging capabilities. The high-performance membrane is 100% polyurethane, containing no fillers or additives, and is VOC-free. PmB is spray-applied in single or multiple layers using a two-component spray pump, with parts A and B mixing at the spray gun for application to the primed substrate. Once applied, PmB has exceptional bond strength and elastomeric capability. **Pitchmastic PmB with Asphalt Overlay** 

### Key performance features:

- > Seamless installation providing a homogenous, water-tight seal
- Installs at ambient and substrate temperatures 32 to 95 °F (0 to 35 °C)
- Rapid setting: 5-8 second gel time, tack free in 1 minute, walkable in 10 minutes, elastomeric in 45 minutes
- > High abrasion and chemical resistance
- Sanded key coat and hot melt tack coat layers provide adhesion point for asphalt overlay
- > Blue tint of membrane helps ensure consistent coverage rates

#### Linden Boulevard Street Bridge

Owner: New York City Department of Transportation Location: Bronx, NY Area: 10,000 ft<sup>2</sup> (930 m<sup>2</sup>) Solution: NYC DOT commissioned a project to rehabilitate

several structures in Brooklyn and the Bronx as part of the city's maintenance program. The heavily trafficked Linden Boulevard street bridge was waterproofed with Pitchmastic PmB and finished with an asphalt overlay.

#### Nouvelle Autoroute 30

Owner: Quebec Ministry of Transport Location: Montreal, Quebec Area: 1,600,000 ft<sup>2</sup> (148,640m<sup>2</sup>)

**Solution:** In a recent extension of the Montreal bypass, Pitchmastic PmB was used to waterproof both bridge decks and structural components of the Beauharnois Canal Bridge, the St. Lawrence River Bridge and the Soulanges Tunnel.



# Overlays

## Matacryl® WS

Matacryl WS provides a sealed wear layer in combination with a PUMA-based flexible, crack-bridging barrier membrane and surface friction suited to the bridge use. In addition to application on concrete and steel substrates, Matacryl WS can be used as a wear surface on fiberglass-reinforced panel (FRP) bridges and structures. Applications include new bridge construction, routine maintenance and bridge restoration as well as unique applications such as bike lanes, transit station pedestrian areas and park trails. Matacryl WS delivers superior, long-term performance by protecting the

Matacryl WS delivers superior, long-term performance by protecting the substrate from the effects of extreme weather and contaminants such as chlorides, deicing salts, chemicals, gasoline and oils.

### Key performance features:

- Available in spray and manually-applied grades to suit job site conditions; no heating or conditioning of resins is required
- Installs at a wide range of ambient and substrate temperatures -4 to 95 °F (-20 to 35 °C) to extend the construction season
- Customizable to the characteristics of the project by adjusting layer thicknesses, aggregate size and color, and top coat color
- Rapid set time promotes fast installation, lower labor costs and efficient handover to next construction phase

Matacryl WS with Pedestrian Grade Aggregate and Tinted Top Coat

Matacryl WS with Vehicular Grade Aggregate

STERNING ST



Rt. Hon. Herb Gray Parkway Owner: Ministry of Transportation of Ontario Location: Windsor, Ontario Area: 107,640 ft<sup>2</sup> (10,000 m<sup>2</sup>)

**Solution:** The \$1.4 billion, massive infrastructure project included highway extensions and park trailways to improve traffic and pedestrian flow in the Winsor-Essex region of Ontario. Matacryl WS was installed on a pedestrian bridge spanning a highway access road and connecting two land bridge and trailway extensions.

# Overlays

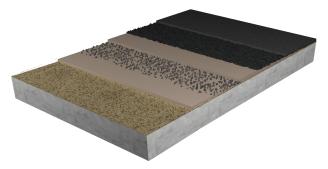
### Matacryl® TPO

Matacryl TPO is a 3/8" thick overlay consisting of primer, a multi-layer aggregated wear coat and seal coat. Utilizing PUMA/MMA chemistry, Matacryl TPO systems cure faster than alternative epoxy-based systems, supporting tight completion schedules and lowering overall application labor costs. A tenacious bond and interlayer adhesion prevent thinning and peeling of layers, effectively preventing the intrusion of water and chemicals that cause concrete deterioration and corrosion. Thin polymer overlays are cost-effective, bridge deck and road surface preservation options designed to fill cracks and provide a skid-resistant surface.

### Key performance features:

- Multi-layer system offers greater durability than traditional "chip-seal" single-layer systems
- Aggregates can be varied to provide appropriate traction and skid resistance for vehicular or pedestrian bridges, roadways, or walking and bike paths
- Interlayer adhesion and chemical bond allow for Matacryl TPO systems to be recoated
- > System may be installed at below freezing temperatures,

Matacryl TPO with Pedestrian Grade Aggregate





Highway 11 Overpass Bridge
Owner: Government of Saskatchewan
Location: Warman, Saskatchewan
Area: 6,500 ft<sup>2</sup> (605 m<sup>2</sup>)
Solution: The Highway 11 southbound overpass bridge that cross
Matacrul TPO system as part of a \$52 million upgrade plan to report of a \$52 million upgrade plan to \$50 million upg

**Solution:** The Highway 11 southbound overpass bridge that crosses the CN Railway near Warman was resurfaced with a Matacryl TPO system as part of a \$52 million upgrade plan to replace or extend bridges and culverts in the province. The system was finished with vehicular grade aggregate offering skid resistance for both fair and icy weather conditions.

# Overlays

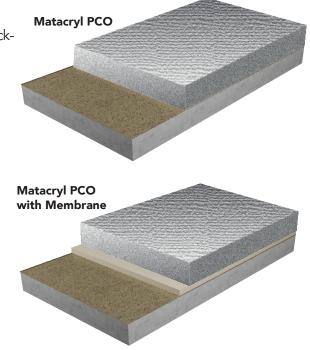
## Matacryl® PCO

The lastest innovation based on polyurethane methyl methacrylate (PUMA) chemistry, Matacryl PCO is a polymer concrete overlay and wear surface for bridge decks. It consists of a polymer resin binder, reactive filler and specially-graded aggregate that mixes to form an ultra-high compressive strength wear surface while adding minimal dead load to the structure.

With an optional Matacryl membrane layer below the overlay, the system offers both exceptional durability and the security of a crackbridging membrane to protect bridge substructure from the ingress of chloride ion contaminants that can corrode rebar.

### Key performance features:

- Rapid installation and cure time, with return to traffic within 2 hours of overlay finishing
- Installation at a wide range of ambient and substrate temperatures -4 to 95 °F (-20 to 35 °C) to extend the construction season
- Cold climate and warm climate resin formulas for optimum workability, regardless of ambient temperature
- Optional membrane layer to enhance system performance in geographies with frequent freeze-thaw cycles
- Exceeds the physical property requirements for compressive strength, elongation and bond strength of common polymer concrete specifications





# Coatings

## Matacryl® PS

Matacryl PS is a waterproof coating system utilizing PUMA membrane technology to protect concrete substructures, both exposed and covered or backfilled. Relevant applications include cut and cover tunnel structures, precast and cast-in-place concrete bridge components, and earth-filled overpass bridges. Matacryl PS consists of a primer base with a Matacryl membrane layer for waterproofing and impact protection. On applications where the surface will be left exposed, Matacryl STC may be used for protection against UV degradation.

#### Key performance features:

- Spray application option for vertical and overhead applications
- Rapid setting, even in extreme conditions allows for in-plant or field application in all climates, seasons and geographies
- High abrasion and chemical resistance protects substrates in dry, damp and wet conditions
- Matacryl PS seamlessly integrates with other Matacryl bridge deck, vehicular and pedestrian overlays and systems for a monolithic waterproofing solution

#### **REM Substructure**

#### Owner: CDPQ Infra

Location: Montreal, Quebec

**Solution:** Réseau express métropolitain (REM) is the largest public transit project in Quebec in the last fifty years. Matacryl PS with a UV-stable top coat was applied to columns supporting the elevated light rail line. Matacryl PS waterpoofs and protects the substructure's concrete and steel reinforcing.

#### **Precast Pedestrian Tunnel**

**Owner:** City of Vaudreuil-Dorion **Location:** Vaudreuil-Dorion, Quebec

**Solution:** A precast structure was used for a pedestrian and cycling tunnel to accelerate construction. Matacryl PS was spray-applied to the exterior surfaces of the tunnel sections to provide waterproofing and corrosion-resistance and ensure the 75 year service life of the structure running under the Exo light rail line in the Montreal suburb.



Matacryl PS with UV Resistant Top Coat

# Coatings

### Matacryl<sub>®</sub> Sealer

Matacryl Sealer is a first line of defense for bridge deck protection. It is a low viscosity, methyl methacrylatebased (MMA) resin applied by flood coating to new or repaired concrete decks to penetrate and seal the horizontal surface. With rapid curing in around 45 minutes, it acts to prevent water intrusion and contamination that cause deterioration and provides a strong, flexible finish. Fine aggregate may be used on the surface for extra skid resistance.

Matacryl Sealer may also be used to treat individual cracks in concrete surfaces before applying a multi-layer waterproofing system. The sealer penetrates the surface to the depth of the crack, preventing further degradation of the surrounding substrate.



### Key performance features:

Typical surface cracking to be treated

- Initiator volume adjustments allow for 20 to 45 minutes cure time between applications, independent of ambient temperature
- > Can be applied in freezing temperatures, allowing for deck surface remediation in winter months
- > Ultra-low viscosity promotes quick absorption into concrete
- > Easy to mix and apply
- > UV-resistant for high performance in all weather conditions



# **Expansion Joints**

FPT Infrastructure provides safe, efficient and economical expansion joint systems for bridges and roads that are subject to varying degrees of movement. Our expansion joint systems meet joint movement requirement capabilities up to 78.7 inches with mechanical, armored and armorless material options.

## **Fibrejoint Asphalt Plug Joint**

Fibrejoint material is a hot-applied, polymer-modified asphalt binder and specific aggregates placed into a prepared expansion joint block out to provide a flexible, water-resistant joint with a quiet, smooth-riding surface. It utilizes a high-temperature tolerant backer rod and 1/4" thick x 8" wide, steel bridge deflection plate.

- > Aggregate has a high PSV value and is a double-washed, dried granite
- > Joint extends across the full length of the roadway and into verges
- > Layer of crushed topping stone provides a tack free surface and compaction of the joint



## Texacrete Elastomeric Concrete

Texacrete is a two-part, polyurethane-based elastomeric concrete used as expansion joint header filler. It can also be used for pothole and concrete spall repair. Texacrete is resistant to UV, solvents and other chemicals, mixes easily, and sets fast for an economical repair option on expansion joint headers.

- > Flexible, non-shrink and tolerant to damp surfaces
- High bond strength to a variety of materials including steel, art stone, natural stone and concrete
- > Hard wearing with inherent flexibility for long service life



# **Expansion Joints**

### **USL Ekspan Transflex Joint**

The Transflex Expansion Joint consists of molded steelreinforced rubber modules for smooth transit between two separate surfaces on the same plane, absorbing expansion, contraction, translation and rotational movements up to 330 mm (13 inches). Transflex can be made with special pieces for curbs, walkways, skew correction and other contours so the continuity of the seal is ensured.



- > Substantially waterproof with a smooth riding surface
- Corrosion-resistant elastomer casing
- > Customized, factory-fabricated units for customized curb and return angles
- > Rebond profiles available for reinstating the end configuration on field cut sections

## **USL Ekspan T-Mat Joint**

The T-Mat Expansion Joint consists of a solid, armored expansion mat made of a high-quality chloroprene with metal reinforcements. The design allows for horizontal movement on either side of the joint in addition to transverse and vertical relative movements of adjacent bridge decks. The joint sits flush with surrounding surfaces, making it extremely pedestrian-friendly and hazard-free during cycle movement.



- > Low noise during operation, making it ideal for residential area applications
- > Five pre-configured sizes accommodate longitudinal movements from +/- .59 to 5.1 inches
- > Chloroprene material is resistant to UV, chlorides, oil and other contaminants
- > Mats can be heat welded on-site to create a continuous water-tight seal spanning the joint

## **USL Ekspan BEJ Strip Seal Joint**

The BEJ Strip Seal Joint is extruded steel incorporating a proven seal retention detail with anchor loops welded at angles and intervals to comply with structural reinforcement requirements. The seal is an elastomeric insert that is load bearing and accommodates joint movement up to 150 mm (5.9 inches).



- > Rapid, on-site assembly with minimal traffic disruption
- > Compatible with Texacrete elastomeric concrete for joint header filler material

# **Expansion Joints**

### **Mataspan<sub>TM</sub> Foam Expansion Joints**

Mataspan best-in-class, pre-compressed and acrylic-impregnated foam products for horizontal joint applications are specifically engineered for infrastructure projects. Our expansion joints provide optimal waterproofing and adhesion to meet global performance standards and feature superior durability, excellent movement capabilities, and streamlined installation. Mataspan expansion joints coupled with Matacryl deck systems provide full surface solutions for infrastructure applications.

Mataspan OC2000 is a pre-compressed, self-expanding foam joint sealant with a traffic-grade silicone coating engineered for horizontal applications subject to solvents and fuels, such as those found in road and bridge joints and airport runways. Mataspan OC2000 is designed to provide a maximum seal in structures with shear and rapid movement. It is made from a foundation of super-resilient, micro-cell, cross-linked polyurethane foam with a hydrophobic acrylic emulsion.

- > Allows for up to 100% (+/- 50%) movement from mean joint size
- > Monolithic foam with no unbonded laminations
- > Designated as a dual expansion joint seal
- > Advanced polymer impregnation without heavy fillers

Mataspan CC4000 is a preformed, compressible system that is impermeable to moisture and provides a watertight seal. It meets all applicable standards for compressible sealants and performs under extreme conditions including bridge and highway expansion joints. It provides a watertight, dustproof, airtight, UV-stable, chemical-resistant, soundproof, and insulated seal. Mataspan CC4000 is made from durable, low density closed-cell, cross-linked ethylene vinyl acetate (EVA) co-polymer foam.

- > Unique profile for easier installation and less tension
- > Closed-cell foam provides excellent compression, tension and shear capabilities
- > Monolithic foam won't delaminate like multi-layer products
- > CC4000C has a traffic grade silicone skin on exposed face









FPT Infrastructure offers a wide range of infrastructure products from companies within USL Group including:

USL Ekspan⊛ Bridge Bearings



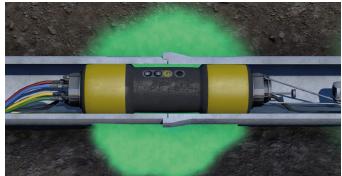
Visul® Systems Tactile Paving Tiles



USL Ekspan® Expansion Joints



Logiball⊚ Utility Pipe Plugs and Packers



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