Watson Bowman Acme

KWIKBOND POLYMERS

KING

BUILDING TRUST

Sika®

INFRASTRUCTURE

BUILDING TRUST

Wabo® | KWIKBOND POLYMERS | KING

More than just products.
SOLUTIONS.

Expansion Joints | Concrete Protection | Concrete Repair

Bridge Deck Overlays | Crack Repair and Healer Sealer | Shotcrete

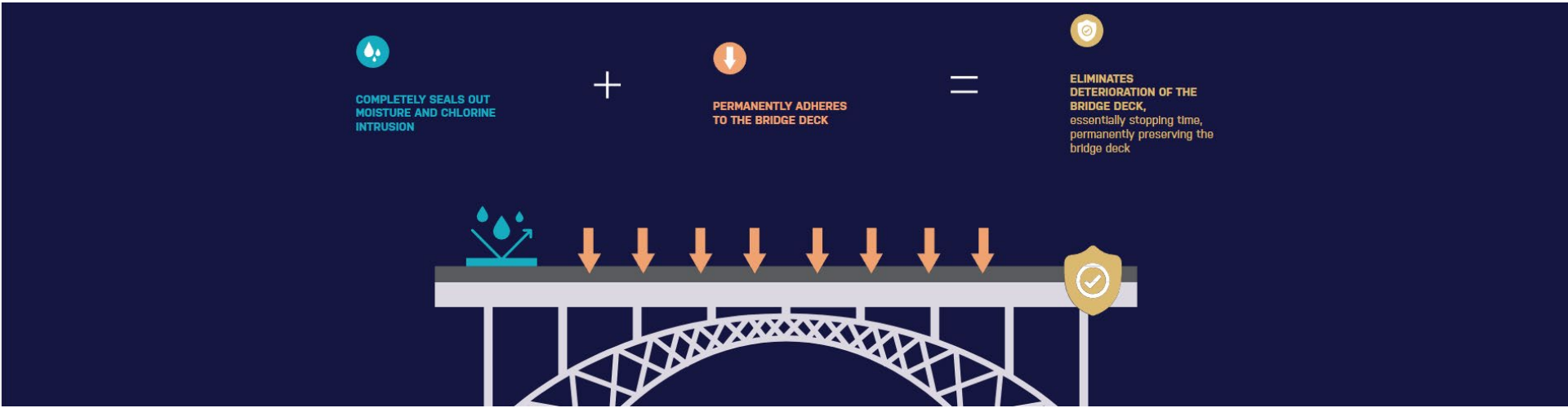
Pile Jacking | Segmental Bridge Adhesive | High Friction Surface Treatments

Grouting | Anchoring | Structural Stengthening

- ✓ New construction/ fabrication
- ✓ Maintenance
- ✓ Preservation

Watson Bowman Acme | KWIKBOND POLYMERS | KING

SIKA KWIK BOND POLYMERS
OVERLAYS



Wearing surface = Wear resistance
Protective barrier = Impermeability

SIKA KWIK BOND POLYMERS
SOLUTIONS

Our Solutions

- High Molecular Weight Methacrylate (HMWM)
- Polyester Polymer Concrete (PPC)
- Hybrid Composite Synthetic Concrete (HCSC)
- Thin Polymer Overlay Advanced (TPO AD)
- High Friction Surface Treatment (HFST)

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TPO AD – PRODUCT INFO

TPO AD is a next-gen alternative to traditional thin polymer bridge deck overlays. It combines Kwik Bond's proven preservation and safety features for enhanced performance. The first layer of High Molecular Weight Methacrylate (HMWM) penetrates and repairs concrete, restoring strength and promoting adhesion. A second layer of hybrid polyester resin adds protection and anchors a durable, high-friction bauxite aggregate.

Layer 1 Resin: KBP ProPrime- HMWM	
Specific Gravity (ASTM D1475)	1.06
Viscosity (ASTM D2556)	<25 cps
Ultimate Tensile (ASTM D638)	>2,700 psi
Adhesion (ASTM C882)	>2,500 psi
Layer 2 Resin: PPC MLS – Hybrid Polyester	
Viscosity (ASTM D2556)	1000-2000 cps
Cure Rate (ASTM D1640)	<3 hours
Gel Time (ASTM C881)	10-30 minutes
Tensile Elongation at Break (ASTM D638)	>30%
Ultimate Tensile Strength (ASTM D638)	>2,700 psi
Bond Strength (ASTM C1583)	>250 psi or 100% substrate failure
Calcined-Bauxite Broadcast Aggregate	
#4 (% passing)	100
#6 (% passing)	>95
#16 (% passing)	0-5
#30 (% passing)	0-1
Aluminum Oxide Content (ASTM C25)	>87%

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SURFACE PREPARATION

- ✓ **Clean**
- ✓ **Sound**
- ✓ **Visibly Dry**

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TPO AD – SURFACE PREPARATION

1. Identify and remove unsound concrete and existing thin polymer concrete overlay (thick, structurally sound overlays may remain)

2. Abrasive blast all substrate surfaces. Clean by shotblasting.

3. Use PPC 1121 or HCSC to patch substrate concrete for optimal compatibility with the existing deck as the TPO AD base.

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TPO AD – TOOLS AND EQUIPMENT

For smaller applications:

- Buckets
- Rollers
- Brooms
- Brushes
- Notched squeegee

For high-production applications:

- Mixed and placed using automated equipment
- Mechanized aggregate broadcaster

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TPO AD – INSTALLATION

LAYER 1:

KBP ProPrime HMWM is a pre-promoted version of KBP 204 with the cobalt promotor pre-mixed into HMWM resin prior to shipment

- Check substrate temperature
- Combine up to 4 gal KBP ProPrime HMWM resin, CHP and ZCure in a clean, dry bucket – mix for 30 seconds
- Within 5 minutes of mixing, empty contents onto substrate surface
- Evenly spread onto substrate surface

LAYER 2:

PPC MLS and PPC HFST Polyester resins are identical resins. Binder resins used in PPC 1121 and HCSC systems are NOT interchangeable with the TPO AD system.

- Combine up to 4 gal Polyester Resin, MEKP Initiator, and ZCure accelerator in clean, dry bucket – mix for 30 seconds
- ASAP after mixing (within 10 minutes), apply evenly over layer 1 with notched squeegee ensuring full coverage
- Immediately broadcast aggregate

SIKA KWIK BOND POLYMERS PRESERVATION

NEXT LEVEL PROBLEMS

Needs:

- Fill cracks
- Add thin, impermeable layer to surface
- Restore friction

Solution:

- Thin Polymer Overlay- Advanced (TPO-AD)
- Minimizes moisture intrusion through thin layer of polymer on top of deck
- Broadcast aggregate

SIKA KWIK BOND POLYMERS
PRESERVATION

WHY SIKA KBP?

New construction & maintenance

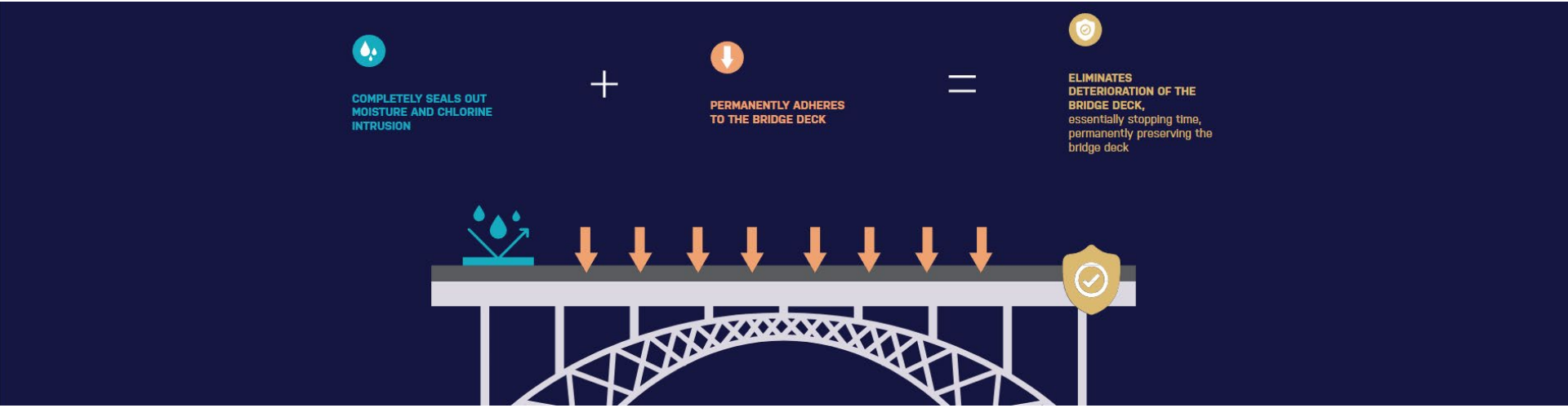
Overlays, headers, nosing & patching

Long service-life history

Fast open to traffic

Specification and Material Design

Technical support and customer service



CONCLUSION

WHO HAS THE FIRST QUESTION?