POLY-CARB

PROVEN PERFORMANCE SYSTEMS
Long-life pavement marking solutions from POLY-CARB provide some of the most dependable day and nighttime visibility in the industry on both asphalt and concrete. Many long-life pavement marking installations have shown high nighttime reflectivity, even after heavy traffic and snow plows.
CO-POLYMER
BRIDGE DECK OVERLAY SYSTEM

For over 3 decades, POLY-CARB has set the standard for bridge deck protection.

Our co-polymer overlay system is twice as strong as concrete and impermeable to water and sodium chloride. Additionally, it maintains skid numbers above 50*, even after multiple years of service. This system can be customized to meet specific performance and budgetary requirements over varying climatic conditions.

In order to mix, meter and dispense material at controlled temperatures with precise application, POLY-CARB engineered the FLEXOGRID Machine.

• Optimized quality control
• Accelerated installation speed
• POLY-CARB is the only material manufacturer that owns and operates its own specialized application equipment for thin co-polymer overlays

<table>
<thead>
<tr>
<th>Properties</th>
<th>Unit</th>
<th>Typical Value</th>
<th>Test Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength</td>
<td>psi</td>
<td>2,200</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Elongation</td>
<td>%</td>
<td>30</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>psi</td>
<td>8000</td>
<td>ASTM C109</td>
</tr>
<tr>
<td>Adhesion to Concrete</td>
<td>psi</td>
<td>&gt; 400</td>
<td>ACI 503</td>
</tr>
<tr>
<td>Chloride Ion Permeability</td>
<td>coulombs</td>
<td>0</td>
<td>ASTM C1202</td>
</tr>
<tr>
<td>Weight (finished system)</td>
<td>lbs</td>
<td>2-3 ft²</td>
<td>-</td>
</tr>
<tr>
<td>Hardness</td>
<td>Shore D</td>
<td>70</td>
<td>ASTM D2240</td>
</tr>
</tbody>
</table>

*ASTM E303

Features:
• Thin and lightweight, yet tough and flexible
• Impervious to moisture and chloride contamination
• Low temperature cold weather formulations available
• Ideal for new construction and bridge restoration/preservation
• Precise mechanized installation
• Strong adhesion to concrete and metal surfaces
• Variety of aggregates available

Benefits:
• Proven long-term performance
• Skid-resistant surface provides safety enhancements
• Protection helps preserve underlying infrastructure
• Rapid asset return to service
• Extended construction season
POLY-CARB MARK-155 UREGRID is an advanced polymer monolithic waterproofing system for conventional and reinforced concrete, box-beam and metal bridge decks that have an asphalt wearing surface. It offers long-term protection from corrosion caused by the ingress of water, de-icing chemicals and other contaminants.

Due to the intrinsic characteristics of the two-component formulation, the elastomer system cures rapidly and shows a high level of resistance to temperature and humidity during application. POLY-CARB utilizes specialized spray-applied robotic technology for the application of UREGRID. The mechanized equipment controls the critical elements of the installation for uniform and seamless distribution of properly mixed material.

Consistent quality in the formulation, materials and installation of the UREGRID System deliver a high-performance waterproofing membrane that effectively helps extend the life of bridge assets.

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<td>Tensile Strength</td>
<td>psi</td>
<td>&gt; 2,000</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Elongation</td>
<td>%</td>
<td>&gt; 150</td>
<td>ASTM D638</td>
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<tr>
<td>Puncture Resistance</td>
<td>G</td>
<td>&gt; 2,000</td>
<td>ASTM D1709</td>
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<tr>
<td>Crack Bridging Ability</td>
<td></td>
<td>Pass @ 10 Cycles</td>
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<tr>
<td>Water Vapor Transmission</td>
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<td>Adhesion to Concrete</td>
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<td>ACI 503</td>
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<tr>
<td>Hardness</td>
<td>Shore D</td>
<td>50</td>
<td>ASTM D2240</td>
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<tr>
<td>Tear</td>
<td>pli</td>
<td>383</td>
<td>ASTM D624C</td>
</tr>
<tr>
<td>Tack Free</td>
<td>sec</td>
<td>15-20</td>
<td>Sprayed</td>
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</tbody>
</table>

Features:
- Effective solution to replace underperforming rolled membrane systems
- Fast set spray-applied monolithic membrane
- Strong adhesion to concrete and metal surfaces
- Controlled installation with robotic technology

Benefits:
- Cost effective solution that minimizes future expenditures and maximizes current budgets
- Minimal traffic inconvenience with accelerated back to service time
- Long-lasting waterproofing protection
- Asphalt replacement without removal of the membrane
SAFE-T-GRID™
HIGH FRICTION SURFACING SYSTEM

SAFE-T-GRID is a single layer, flexible polymer-aggregate high friction surfacing system. The single-coat system adds increased skid resistance and roadway identification to help improve visibility and safety. It is more cost effective than concrete overlays and other competitive offerings. A second layer can be applied for added durability and for open-grade asphalt applications.

Based on proven technology, SAFE-T-GRID is able to deliver skid resistance and excellent color demarcation even after years of wear and tear from weather, traffic and snow-plows. A variety of aggregates can be utilized to meet specific performance, color and budgetary requirements, as well as weather conditions.

SAFE-T-GRID is a fast-curing system that allows for traffic service to be restored within hours of the application.

<table>
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<td>Tensile Strength</td>
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<td>ASTM D638</td>
</tr>
<tr>
<td>Elongation</td>
<td>%</td>
<td>45</td>
<td>ASTM D638</td>
</tr>
<tr>
<td>Compressive Strength (3 hr)</td>
<td>psi</td>
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<tr>
<td>Compressive Strength (24 hr)</td>
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<td>ASTM C109</td>
</tr>
<tr>
<td>Adhesion to Concrete</td>
<td>psi</td>
<td>&gt; 400</td>
<td>ACI 503</td>
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</tbody>
</table>

Features:
- Thin, yet tough and flexible
- Strong adhesion to concrete, asphalt and metal surfaces
- Fast-curing formulation
- Precise mechanized installation available
- Variety of aggregate colors, sizes and textures available

Benefits:
- Skid-resistant surface provides safety enhancements
- Proven accident rate reduction
- Installation with minimal traffic congestion
- Rapid asset return to service
- Supports preservation of underlying infrastructure
- Color and audible differentiation alerts drivers
- Low life-cycle costs

Applications:
- Roads with hazardous curves
- Bus lanes and stops
- Bicycle or pedestrian paths
- Toll authority lanes
- School & hospital speed zones
- Intersections & crash prone areas
- Highway & parking access ramps
- Airport access lanes
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