Royston Bridge Membrane – 10A-65 Easy Pave

Royston Bridge Membrane – 10A-65 Easy Pave is a prefabricated reinforced laminate consisting of an impregnated woven fiberglass, high strength inner fabric reinforcement, sandwiched between two layers of polymer modified bitumen. A unique 3-inch leading edge guarantees a positive compound-to-compound seal at the overlap. Transverse seals are easily made using Flex-Flo Adhesive Sealant (FFAS), Royston 104 CM Mastic or via heat sealing.

FEATURES | BENEFITS
--- | ---
Waterproof | Enhanced protection of bridge deck
Woven fiberglass reinforcement | Increased tensile and puncture strength
Flexible | Allows for minor amount of movement related to thermal expansion/contraction, settlement or shrinkage
3" Leading edge | Adhesive to adhesive bond ensures water-tight seam
70 mil thickness, min. | Factory made sheet ensures consistent mil thickness
Cold applied | Eliminates dangers of using hot liquids

USES

Application
- Waterproofing Membrane

Locations
- Bridges/Highways/Tunnels/Airport Runways
- Balconies
- Parking Garages

Substrate
- Concrete
- Asphalt
- Steel
- Wood

PRODUCT DESCRIPTION

1. Embossed release film
2. Polymer Modified Bitumen
3. Woven fiberglass reinforcement
4. Polymer modified bitumen
5. Spun bonded polyester mat

<table>
<thead>
<tr>
<th>Property</th>
<th>Test</th>
<th>Modified Bitumen Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength, lbs/in (minimum) (1)(3)</td>
<td>ASTM D 882 (2)</td>
<td>40</td>
</tr>
<tr>
<td>% Elongation at Break, (minimum) (3)(4)</td>
<td>ASTM D 882 (2)</td>
<td>10</td>
</tr>
<tr>
<td>Pliability</td>
<td>ASTM D 146 (5)</td>
<td>No cracks</td>
</tr>
<tr>
<td>Thickness, mils (minimum)(6)</td>
<td>ASTM D 1000</td>
<td>70</td>
</tr>
<tr>
<td>Softening Point, °F (minimum)</td>
<td>ASTM D 36</td>
<td>210</td>
</tr>
<tr>
<td>Permeance, perms (maximum)</td>
<td>ASTM E 96, Method B</td>
<td>0.1</td>
</tr>
<tr>
<td>Puncture Resistance, lbs. (minimum)</td>
<td>ASTM E 154</td>
<td>25</td>
</tr>
<tr>
<td>Weight, lbs/ft² (minimum)</td>
<td>TWI100328</td>
<td>0.35</td>
</tr>
<tr>
<td>Pen Cup (minimum)</td>
<td>Compound Penetration, ASTM D5</td>
<td>40</td>
</tr>
<tr>
<td>Panel 713 A, lbs/in (minimum)</td>
<td>Adhesion test with primer 713 A, TWI100331</td>
<td>15</td>
</tr>
<tr>
<td>Panel 713 B, lbs/in (minimum)</td>
<td>Adhesion test with primer 713 B, TWI100331</td>
<td>5</td>
</tr>
<tr>
<td>Compound/Leading Edge, lbs/in (minimum)</td>
<td>ASTM D1876, Mod., TWI100333</td>
<td>3</td>
</tr>
<tr>
<td>Compound/Compound, lbs/in (minimum)</td>
<td>ASTM D1876, Mod., TWI100333</td>
<td>3</td>
</tr>
<tr>
<td>Compound/Top Film, lbs/in (minimum)</td>
<td>ASTM D1876, Mod., TWI100333</td>
<td>3</td>
</tr>
</tbody>
</table>

Notes: (1) Breaking factor in machine direction.
(2) Method A, 1-inch wide strip with 4-inch minimum initial separation and 4-inch gage length at 2 inches per minute. Average 5 samples.
(3) At 73.4°F ± 3.6°F.
(4) Machine direction.
(5) 180-degree bend over a 1-inch mandrel at -15°F.
(6) Total thickness of preformed membrane sheet and polyethylene film or fabric reinforcement.
WHAT IT DOES

ROYSTON 10A-65 Easy Pave forms an impermeable barrier between the concrete decks and subsequently applied traffic bearing toppings or surfacing material. It effectively prevents moisture, salts and deicing chemicals from infiltrating concrete surfaces, eliminating the damage to steel reinforcing and eliminates concrete damage as a result of freeze-thaw cycles.

The spun bonded polyester top surface provides better traction during paving for rubber tired trucks, pavers and other vehicles. Although the spun bonded polyester mat has a high melting point, the hot asphalt forms a strong bond to the bituminous compound during compaction.

WHERE TO USE IT

ROYSTON BRIDGE MEMBRANE 10A-65 Easy Pave should be used to cover concrete decking of new highway bridges prior to the application of the surfacing material. It may also be used during resurfacing of old bridges to prevent further ingress of corrosive agents. Also excellent for use on parking decks, balconies, plazas and other locations where waterproofing is required.

SURFACE PREPARATION

New Surface: Ensure that surface is contaminant and laitance free. Surface must be swept and blown clean prior to adhesive and membrane application.

Existing Surface: Profile milled surface with close tooth spacing 3/16” (4.75mm) or less. Ensure that the previous water proofing system has been removed in its entirety. Grooves in the concrete deck must be less than 3/16" (4.75mm). Surface must be swept and blown clean prior to adhesive and membrane application.

Milled Surface: If grooves in the concrete deck are ¼” (6.35mm) or greater tenting will occur. A scratch coat of asphalt must be applied prior to the adhesive and membrane installation. All unstable locations in the deck must be patched prior to the application of the scratch coat. The asphalt scratch coat should be allowed to cool to ambient temperature (2-3) hours. Surface must be swept and blown clean prior to membrane application. No adhesive is required.

Existing Asphalt: If the membrane is being applied over the surface of existing asphalt that is less than a year old, no adhesive is required. The existing asphalt surface must be clean prior to membrane installation. If the asphalt surface is greater than 1 year in age, use the appropriate adhesive.

USE OF ADHESIVE

Reference the applicable adhesive technical data sheet for application procedures and rates. Royston Roybond Adhesives should be stirred before using and applied at a rate of approximately 200 sq. ft. per gallon, without dilution, by brush, squeegee, roller or other acceptable methods.

The adhesive should be allowed to dry to the touch before application of the membrane. This will require 20 to 30 minutes depending on temperature and humidity. Brush out any puddles of adhesive to allow for complete drying.

Roybond 713A: Standard Adhesive
Roybond 713B: Low V.O.C. Adhesive
Roybond 740: Low temperature adhesive for use between 25°F (-4°C) and 45°F (7°C)
Roybond 750: Spray-able version of the 713A standard adhesive

APPLICATION

For best results, the membrane should be applied at surface and ambient temperatures of 25°F or higher. The membrane should be applied by hand rolling onto the application surface. The release film should be removed as the application proceeds. The membrane should be applied to the decking surface and terminated at the curb. The membrane should be embedded in Flex Flo Adhesive Sealant (FFAS) at all perimeter edges/termination points. A stop seal of Flex Flo Adhesive Sealant is to be applied on the surface of the membrane along all perimeter edges/termination points at the conclusion of the membrane installation.

Each roll should be applied to overlap the previous roll by a minimum of 3-6 inches. Overlapping of the membranes typically results in the loss of 10% of the usable surface area, reducing the coverage area from 200 ft² to 180 ft² per roll. The overlap at the edge is self-sealing due to the placement of the spun bonded polyester mat providing compound-to-compound contact. The transverse joint lap at the end of each roll should be sealed by heating with a propane torch to melt the spun bonded polyester mat and fuse the surfaces together. Patching may also be done by the heat sealing method or with the use of Royston 104CM or Flex-Flo Adhesive Sealant.

Narrow strips (curb strips) are available for easy application to curb areas. If a curb strip is required by the specifying agency or engineer, the membrane should be brought up the curb to a point ½ inch below the top of the overlay, or as otherwise provided by the engineer. Care should be taken to avoid rupture of the membrane when molding it to irregular contours.

Membrane should not be applied if weather will not permit for the paving of asphalt on top of the membrane prior to rain. If inclement weather occurs prior to paving and water is able to migrate under the membrane, the removal, drying of the deck and reinstallation of the membrane is required.

For additional instructions, reference the membrane installation instructions guidelines.
APPLICATION OF HOT ASPHALT OVERLAY
The asphalt should be between 290°F and 340°F at the time of application. Rubber tired pavers and trucks may be driven on the membrane provided care is taken to prevent sudden starts, stops or turns. As the hot asphalt is compacted, it bonds firmly to the surface of the membrane. A minimum of 1-½ inches (32mm) of compacted asphalt is required.

AVAILABILITY
Rolls: 4' wide x 50' long (28 rolls per pallet)

SHELF LIFE: 1 year

STORAGE CONDITIONS
Must be stored in a cool shaded area between 35°F and 90°F.