FIBREJOINT
Asphaltic Plug Joint

www.fibcretept.com
Overview:

The FibreJoint System has been developed to provide an alternative solution to the problematic experience with expansion joint systems on bridges. FibreJoint provides a quiet, smooth riding surface, is easy to install, water resistant, and cost competitive.

Description Of Material:

The FibreJoint material is a hot applied polymer modified asphalt binder and specific aggregates placed into the prepared expansion joint block out.

The specific aggregate has a high PSV/crushed value shall be a crushed; double washed, and dried granite. It will be supplied in a 3/4” gradation.

The backer rod shall be a closed cell, foam expansion joint filler, capable of withstanding the temperatures of the mastic asphalt binder. The backer rod shall meet ASTM D-545 test methods.

The bridge deflection plate shall be a mild steel plate a minimum of 1/4” thick by 8” wide.

Joint Width & Depth:

<table>
<thead>
<tr>
<th>Joint Width (inches)</th>
<th>Joint Thickness (inches)</th>
<th>Max. Horizontal Movement (inches)</th>
<th>Max. Vertical Movement (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.5</td>
<td>4.0</td>
<td>+/- 0.8</td>
<td>+/- 0.6</td>
</tr>
<tr>
<td>29.5</td>
<td>3.0 - 4.0</td>
<td>+/- 0.8</td>
<td>+/- 0.6</td>
</tr>
<tr>
<td>29.5</td>
<td>2.0 - 3.0</td>
<td>+/- 0.8</td>
<td>+/- 0.6</td>
</tr>
<tr>
<td>20.0</td>
<td>4.0</td>
<td>+/- 0.8</td>
<td>+/- 0.6</td>
</tr>
<tr>
<td>20.0</td>
<td>3.0 - 4.0</td>
<td>+/- 0.8</td>
<td>+/- 0.6</td>
</tr>
<tr>
<td>20.0</td>
<td>2.0 - 3.0</td>
<td>+/- 0.5</td>
<td>+/- 0.6</td>
</tr>
<tr>
<td>12.0</td>
<td>4.0</td>
<td>+/- 0.2</td>
<td>+/- 0.6</td>
</tr>
<tr>
<td>12.0</td>
<td>3.0 - 4.0</td>
<td>+/- 0.2</td>
<td>+/- 0.6</td>
</tr>
<tr>
<td>12.0</td>
<td>2.0 - 3.0</td>
<td>+/- 0.2</td>
<td>+/- 0.6</td>
</tr>
</tbody>
</table>

Construction Procedures:

The FibreJoint system installation shall be centered over the existing expansion joint gap to the recommended width of 20”. Variations in the width of the joint will be determined by the site engineer and the manufacturer.

Remove all material between the joint block out, including the wearing surface, riser bars. Damaged concrete on the joint table must be removed. The previous expansion joint system must be removed to a depth which will allow the FibreJoint system to be installed, normally 2” minimum.

The area is cleaned and dried and the backer rod installed. A coating of the FibreJoint binder is applied to form a waterproof seal. The deflection plate is centered over the joint. Then the FibreJoint binder and aggregates are mixed on site and are applied until level with surface. A final tack coat of binder is applied with a crushed topping stone to provide a tack free surface and compacted to ensure the joint is free of voids.
New Construction:

In new works or when re-surfacing during maintenance scheme, it is necessary to temporarily cover the deck expansion gap to prevent ingress of materials into the expansion gap. Any such coverings should be easily removed when the trench is excavated for the joint.

Temporary saw-cuts into the newly laid surface above the deck expansion gap may be considered necessary to prevent unacceptable cracking of the surfacing before the joint is installed. As a general rule, this is not required when the joint is installed immediately after the surfacing has been laid.

However, if appreciable deck movement is predicated after surfacing and before joint installation, then saw cutting should be carried out by the general/prime contractor after the surfacing has cooled sufficiently.

Additional Information:

Technical & Advisory Service:

Further technical information may be obtained on request and consultation is encouraged to ensure choice of materials selected and detailing is optimised to suit in-service performance requirements and economic solutions.

Health & Safety:

FPT operate a strict health and safety policy and details are available on request.

Note:

The colours used in the illustration may not be indicative of the finished product. FPT reserve the right to update and improve the FibreJoint and its specification without notice and Engineers and Contractors should satisfy themselves that they have full and up to date information.
Waterproofing Systems

To increase the durability of reinforced concrete bridges, all concrete movement and construction joints, plus the bridge decks have to be waterproofed to prevent serious damage to the concrete, or to the embedded steel reinforcement.

Concrete Repairs

Hot applied grey and black flexible repair mastics for concrete are used to repair spalls, potholes, broken joints, corner breaks and most other horizontal defects on concrete. They are easy to apply, open to traffic within hours of installation, and have a long life expectancy.

Asphalt Repairs

Hot applied flexible repairs for asphalt pavement defects.

Expansion Joints

Bridge deck joints form an integral part of the road or structure. Joints reduce the impact of stresses caused by traffic that result in cracks and faults in the road surface.