Installation Procedure

Last Updated: May 7th, 2018

Wabo®Crete SiliconeSeal
High Performance Silicone and Elastomeric Concrete Expansion Joint System for Bridge & Highway Application

The following installation procedure is very important and must be fully understood prior to beginning any work. To ensure proper installation and performance of expansion joint system the following actions must be completed by the installing contractor. Failure to do so will affect product warranty.

1) Carefully read and understand installation procedure. Contact WBA’s Technical Service Department at (800) 677-4922 for product assistance.
2) Inspect all shipments and materials for missing or damaged components and hardware. Contact Customer Service at (800) 677-4922 with WBA's order number and invoice for prompt assistance.
3) Inspect substrate or adjacent construction for acceptance before beginning work. Report unacceptable construction to the project manager for scheduled repair work.
4) Review WBA shop drawings for project specific detailed information if Engineering services were purchased at time of order.

Information provided herein, including but not limited to, any drawing, design, photograph, graphic, or statement(s) ("Materials") are proprietary and the property of Watson Bowman Acme Corp. ("Company"). Reproduction, translation, or reduction to any electronic medium or machine readable form, in whole or part, is strictly prohibited, except for the express purpose for which it has been furnished, without prior written consent of Company. All Materials contained herein are provided by Company for information purposes only. Company reserves the right to amend or withdraw any information contained in the Materials without notice. All technical or other advice by Company, whether verbal or written, concerning products, or the use of products in specific situations ("Advice") is given by Company and is used at the User's own risk.
Health & Safety

During the installation of any Watson Bowman Acme product, appropriate personal protective items should be worn at all times, including but not limited to the following:

- Proper work clothing
- Safety glasses
- Safety boots
- Gloves
- Hard hat

Local rules and regulations regarding safe work environments and health should be followed.

Pre-Installation Notes

The work shall consist of furnishing and installing a Wabo®Crete SiliconeSeal joint system in accordance with the details shown on the plans and the requirements of the specifications. Placement of the Wabo®Crete SiliconeSeal joint system shall consist of proper surface preparations, material and application of materials.

Blockout Preparation for Wabo®Crete II Elastomeric Concrete

- The blockout shall be constructed to the dimensions on the drawings. The concrete substrate must be clean (free of dirt, coatings, rust, grease, oil and other contaminants), sound and durable. New concrete must be cured (minimum of 14 days) and all laitance removed. Suitable preparation methods include sandblasting, chipping and scarification. Acid etching is not encouraged, although it may be required.

- Steel surfaces must be abrasive blasted SP-10 near white, immediately prior to installation. This is a requirement in new or existing construction. All oxidation must be removed and “white steel” revealed. Where abrasive blasting is not permitted, steel surfaces will be aggressively disc-ground to roughen and abrade the surface to achieve the “white steel” condition.

- **Durable Concrete**— sound and durable concrete should have a cap pull-off strength that meets or exceeds ACI 503R, Appendix A.

- **Unsound Concrete** – Loose, contaminated, weak, spalled, deteriorated and/or delaminated concrete must be removed to sound concrete and repaired prior to placement of Wabo®Crete II elastomeric concrete.

- **Cracks** – prior to placement of the Wabo®Crete II elastomeric concrete, repair cracks with an appropriate crack sealer.
Mixing of Wabo®Crete II Elastomeric Concrete

1. Wabo®Bonding Agent must be used as a primer on the properly-prepared concrete before beginning the installation of the Wabo®Crete II elastomeric concrete. Mix Part A (resin) and Part B (hardener) separately in their individual containers before combining them together. Combine Part A and Part B, 1:1 by volume in a separate clean container. Mix thoroughly with an electric drill and “egg-beater” style mixing paddle, approximately 2 minutes or until color consistency is developed.

2. Brush apply the primer to the concrete surface and immediately begin the installation of the Wabo®Crete II elastomeric concrete. DO NOT allow the primer to cure.

3. Thoroughly stir Part B separately before pouring entire contents of Part B into a clean 5-gallon container. Add Part A and mix both components with a power mixer equipped with “egg-beater” style mixing paddles for 30 seconds and until well blended.

4. Add the aggregate component to the liquid material and mix until all aggregate is coated (approximately 1 minute). This mix can be poured into the properly-prepared blockout. The material will flow and self-level.

5. Aggregate such as “Black Beauty” can be added to the surface to inhibit skidding (wait approximately 10-15 minutes). Clean tools with a thinner or a solvent such as Xylol.

Placement of Wabo®Crete II Elastomeric Concrete

1. The final blend of Wabo®Crete II elastomeric concrete is poured out of the mixing bucket and into the blockout area. Wabo®Crete II is an ambient cure material. Cure times are, therefore, temperature dependent. Suggested cure times are listed below:

<table>
<thead>
<tr>
<th>Cure Time (Open to Traffic)</th>
<th>70-90 °F (21-32 °C)</th>
<th>50-70 °F (10-21 °C)</th>
<th>40-50 °F (4-10 °C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cure Time</td>
<td>1-1 ½ hours</td>
<td>1 ½ - 2 hours</td>
<td>2 –3 hours</td>
</tr>
</tbody>
</table>
Joint Preparation

1. Once Wabo®Crete II elastomeric concrete is cured, joint interfaces should be sandblasted to remove any residual that may be present. It is recommended that the sandblasting operation be performed in two steps, one step per joint interface.

2. The joint should be blown clean using compressed air (>90 psi). The compressed air shall be free of moisture and oil. The joint interfaces should be checked for cleanliness. Should any contaminants remain, the joint must be re-blasted and blown clean. To insure cleanliness, each joint interface should be checked by rubbing a finger along the interface, checking for evidence of dust.

Backer Rod Placement

1. A closed-cell, expanded polyethylene foam rod is recommended. The rod acts as a bond breaker, preventing the Wabo®SiliconeSeal from bonding to the bottom of the joint and preventing the flow of the material through the joint itself. The size of the backer rod should be 25% greater than the joint opening to be sealed. The backer rod should be positioned in the joint such that the top of the rod is one inch (25mm) below the riding surface.

Mixing of Wabo®SiliconeSeal

1. The Wabo®SiliconeSeal should be applied using proper dispensing equipment such as Johnston or Graco/Pyles extrusion pump for 10-gallon kits or dual component pneumatic powered double piston guns for 25.36-oz cartridges.

2. Regardless of equipment used, the material shall be mixed using ½ diameter 18 element static mixer or greater.

3. Caution: Do not allow material to remain static in mixer longer than five (5) minutes without changing to a new static mixer. Uncured sealant can be removed with the use of solvents such as naphtha or mineral spirits.
Wabo® Silicone Seal Placement

1. Application of the Wabo® Silicone Seal should be in one direction only and from the bottom of the joint, up. The Wabo® Silicone Seal shall be applied to a thickness of ½” (13 mm) minimum while not exceeding 5/8” (16 mm) and maintaining a ½” (13 mm) recess from the riding surface.

2. Wabo® Silicone Seal will begin to cure and form a surface skin within 20 minutes of application. The seal will be ready to accept traffic generally within one hour after installation.

Follow us on social media for industry news, new product announcements & more: