

Installation Procedure

Last Updated: July 2024



Wabo[®] SurfaceMend Epoxy Polymer Concrete

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.

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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.

Recommended Equipment

Watson Bowman Acme recommends the following equipment and tools for ease of installation:

- Two-inch (2") hand margin trowels
- Sandblasting equipment to remove laitance in new concrete, and debris or other contaminants for joint replacement in blockout area
- Portable (pneumatic tire type recommended), drum batch mixer with heavy duty mixing paddle/scrapper to mix product. Minimum drum size of 3.5 cubic feet for one (1) cubic foot units to be mixed. 10 gallon bucket and heavy-duty drill and paddle can also be used.
- Float for finishing
- Solvent for cleaning tools
- Electrical power to run drum mixer
- Slow speed drill



Example of portable drum mixer
(3.5 cubic foot)

Please ask a WBA representative for portable drum mixer recommendations larger than 3.5 cubic feet

Standard Components & Storage

1

Store material at minimum of 40°F* (4°C) in a dry enclosed area making sure materials are off the ground and out of direct sunlight. Shaded areas recommended.

***Note:** Precondition material to 70°F if installation temperatures are between 40°F-70°F



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Wabo®SurfaceMend Part “A”

WBA Part #50005 - 1.0Gal.

Wabo®SurfaceMend Part “B”

WBA Part #50005 - 1.0Gal.

Wabo®SurfaceMend Part “C”

(Aggregate = ~ 50lb bag)

WBA Part #50002



For ambient temperatures between 40°F (5°C) -70°F (21°C) WBA recommends to tent over material and heat. Please contact WBA for more information.

Substrate Preparation (Concrete- New or Aged)

2

The concrete joint interface 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. Contact WBA if earlier placement of material is required. Sound, durable concrete shall have a recommended cap pull-off strength that meets or exceeds ACI 503R, Appendix A criteria.

Edge spall or slant shear bondline conditions should be keyed out prior to installation of the Wabo®SurfaceMend header, following ACI guidelines.

The preferred method of surface preparation is abrasive blasting. A minimum CSP 2 profile (The profile should be close to an 80 to 100 grit sandpaper texture). Where this is not permitted, disc grinding shall be employed. Care should be taken to ensure an abraded surface is achieved by use of a coarse disc. The gap openings shall be blown out with clean air to remove dust.

Substrate Preparation (Steel- New or Aged)

3

When bonding to steel surfaces, inspect the steel to ensure it is in good condition. If pack rust or heavy oxidation is present, it must be removed to bare steel. If steel loss is too great as determined by the Engineer of Record, the steel substrate will need to be removed and replaced.

Dry abrasive blasting using compressed air, blast nozzles and abrasive is recommended. SSPC-SP10 near white blast cleaning will provide the best profile. Blasting must be done just prior to seal installation.

Blow off area using clean compressed air. Please refer to SSPC reference materials for proper methods, materials and specifications for steel preparation



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Contact WBAC Technical Service for any unique conditions or project specific concerns. **800-677-4922**

General

4

The work shall consist of furnishing and installing Wabo®SurfaceMend Gray Polymer concrete in accordance with the plans and the requirements of the specifications. Placement of the Wabo®SurfaceMend Gray Polymer concrete shall consist of proper surface preparations, material and application of materials.

Mixing of Wabo®SurfaceMend

5

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Empty Part A and Part B in the proper ratio (1:1) into a portable mortar mixer, and mix both liquid components for approximately three (3) minutes. All pails must be fully emptied to ensure proper mix ratio (completely scraped out) as shown at right.

Add two (2) pre-weighed bags of aggregate to the mix for approximately 3-5 minutes.

Wabo®SurfaceMend when mixed properly should be an even gray color with no dry pockets of aggregate



Placement of Wabo®SurfaceMend

6 Pour the mixed unit into the prepared blockouts. Compaction is required to ensure proper consolidation, and can be achieved through the use of a trowel end or float. Finish of the material can be achieved by use of a mag float, and material must be level with the adjacent roadway surface (see picture). A solvent can be used on the float if needed.

Open to Traffic Times

7 Pour Wabo®SurfaceMend is an ambient cure material. “Open to Traffic Times” are, therefore, temperature dependent. Precondition the raw materials and the blockout areas to a minimum of 80°F prior to mixing and installing Wabo®SurfaceMend if project requires faster times. Tenting and heating can be utilized.

(without Accelerator)

50°F (10°C) 12 hours

60°F (16°C) 8 hours

70°F (21°C) 5 hours

80°F (27°C) 3 to 4 hours



Field Service Assistance

8 Throughout our history, particular attention to providing best in class products and services to our customers has been a key focus. Watson Bowman Acme as a result offers Field Service Assistance. Please contact us to discuss rates and schedules with our Field Service representatives to address any unknown field conditions, project specific recommendations and the proper installation procedures of our products.



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