



SPECIFICATIONS

FLEXIBLE EPOXY CONSOLIDANT 100 Series

SECTION 06610 WOOD EPOXY CONSOLIDATION

PART 1 GENERAL

1-1 Description:

The work in this section consists of epoxy consolidation of deteriorated wood.

1-2 Quality Assurance:

1-3 Submittals:

- A.** Submit manufacturer's product instructions and technical data sheet and product specifications.
- B.** Submit a small sample of epoxy consolidant 100 series to the Project Manager for approval prior to application.
- C.** Submit manufacturer's Safety Data Sheet (SDS) for both A & B components.

1-4 Product Storage & Handling:

- A.** Deliver epoxies in manufacturer's original, unopened containers and store inside at room temperature or as recommended by manufacturer.
- B.** Do not use epoxies which have exceeded manufacturer's shelf life.
- C.** Epoxy stored below freezing (it won't freeze), should have a small sample mixed to test the cure prior to use.
- D.** Follow safety precautions of epoxy as defined by manufacturer or product associations or OSHA. Observe good housekeeping practices when working with epoxies.
- E.** Flammable solvents may not be stored in or brought within 20'/6m of an historic structure.

1-5 Project Conditions:

- A.** Epoxy applications are to be performed in favorable weather conditions..
- B.** Wood that is to receive epoxy must be dry and have moisture content below 20% by weight at the time of application. Protect area from moisture until epoxy has completely cured. For vulnerable moisture prone areas that have sustained decay, consider first treating with liquid borate preservative 700-BC or 700-BD.
- C.** Epoxy consolidant applied in an optimal temperature range of 50°–90°F/10°–32°C will provide a reasonably quick cure. Consider using the faster curing W100 or X100 when the temperature is below 50°F/10°C and as low as 15°F/-9°C. Cold or freezing temperatures will slow down the cure. Expect to double the cure time for approximately every 20°F/11°C drop in temperature. Use of a heat tent around area is acceptable in cold weather. Shade the mixing and application areas from direct sunlight in hot weather for a minimum of 8 hours following consolidation of the affected area.
- D.** Area is to be secured from public use during epoxy application. Do not spray epoxy within 30 feet of public access. Secure areas as necessary to prevent intrusion of unqualified personnel.

1-6 Cleanup:

- A.** Following application leave all areas free and clean of epoxy. Discard unused epoxy, containers, tools and paper towels in accordance with local, state and federal Environmental Protection Agency regulations.

PART 2 PRODUCTS

2-1 Materials:

- A.** Epoxy consolidant: Epoxy should be of a type which has regular and proven use for consolidation applications in decayed wood. Epoxy must have low viscosity and be slow curing to allow for maximum penetration and successive applications. Fully cured epoxy must be more flexible than wood at 50°–100°F/10°–38°C temperature range. At 72°F/22°C, a cured epoxy disc measuring approximately 1/4”/6mm T x 4”/101mm dia. should be able to have the edges bent enough to touch the other side then flex back flat without breaking/splitting.

2-2 Available Products:

Subject to compliance with requirements, products which may be incorporated in the work may include but are not limited to:

ConServ Flexible Epoxy Consolidant 100 Series
ConServ Epoxy LLC conservepoxy.com

or equivalent

2-3 Mixes: Follow manufacturer's instructions.

PART 3 EXECUTION

3-1 Inspection:

In most cases deteriorated wood must be removed before the affected area can be accurately defined. Actual parameters may vary for each situation. Verify conditions and proposed treatment with Project Manager.

3-2 Preparation:

- A.** All loose and soft wood decay must be removed prior to application of epoxy consolidant. Attempt to remove decay down to solid wood. Verify standard for performance with Project Manager. If serious decay exists and if practical, 1/8" to 1/4”/3mm to 6mm holes may be drilled into the affected area approx. 1-1/2”/38mm apart for better epoxy penetration. Remove all loose wood fragments and vacuum out or blow out dust.
- B.** Protect treatment areas from moisture until epoxy consolidant has been applied and has cured. Wood to be consolidated must be dry and have a moisture content of less than 20% to within 3 inches of the area to be repaired.
- C.** Protect vegetation and surrounding surfaces from epoxy spills, drips or overspray.

3-3 Installation/Application:

- A.** Epoxy consolidant may be applied by pouring, brushing or by spraying. Power spraying maximizes penetration and coverage of hard to reach areas, but requires experienced personnel using professional equipment and following strict safety guidelines. Read all manufacturer instructions, cautions, and technical data.
- B.** Apply to prepared decay zones, voids, laminations, etc. Do not allow consolidant to touch adjacent areas, materials or building components. Repeat application 4 to 6 times or until surfaces will accept no more epoxy. Allow approximately 1/2 to 1 hour between applications to minimize run-off and wasting of product.
- C.** Keep epoxy consolidant out of direct sunlight in hot weather until fully cured.

3-4 Cleanup:

Following the epoxy application, leave all areas free and clean of epoxy. Discard unused epoxy, containers, tools and paper towels in accordance with local, state and federal EPA regulations.

“From hands-on professionals...For hands-on preservationists”
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