

1. Water blast at 7,000 psi (48 MPa) minimum, or
2. Sandblast, followed by air brooming or power sweeping, to remove dust and sand from the surfaces and opened pores. Remove all membrane curing compound.C. Exposed surfaces of new prestressed concrete box beams
  1. Clean with high pressure hot water or steam jenny, or
  2. Water blast at 7,000 psi (48 MPa) minimum, or
  3. Sandblast, followed by air brooming or power sweeping, to remove dust and sand from the surfaces and opened pores

D. Existing concrete surfaces.

1. Water blast at 7,000 psi (48 MPa) minimum, or
2. Sandblast, followed by air brooming or power sweeping, to remove dust and sand from the surface and opened pores.

**864.08 Application and Coverage.**

A. Epoxy - Urethane sealers.

1. Apply each coat of the Epoxy-urethane sealer at the coverage rate specified on the Office of Materials Management's approved list.  
(Web site is: <http://www.dot.state.oh.us/testlab/applists/cement/Epoxies.htm>)  
If no application rate is listed, apply each coat at 120 square feet per gallon (2.9 square meter/liter).
2. Only apply sealer when the surface temperature is 50F (10 C) or above
3. Apply with a brush, squeegee, roller or spraying equipment and as recommended by the manufacturer.
4. Apply one coat of epoxy and one coat of the urethane top coat. Time between coats shall meet the manufacturer's recommendation. Use epoxy and urethane from the same manufacturer. Achieve specified coverage regardless of the number of passes per coat.
5. Tint so the final color is Federal Color Standard No. 17778 - Light Neutral. Pigment content shall be limited so as not to reduce sealing effectiveness of the second coat. Refer to the plans for colors for specific projects.
6. Sags and runs are not acceptable in the sealer.
7. For sealed sidewalks or other horizontal surfaces with repetitive foot traffic or vehicular traffic, integrate 1-1/2 lbs. per square yard(0.8 kg/square meter) of silica sand into the surface of the second coat to produce a non-skid surface satisfactory to the Engineer.

B. Non-epoxy sealer.

1. Apply the sealer according to the manufacturer's recommended mode of application and under the observation of the Engineer.
2. Coverage.  
Surfaces subject to abrasive wear (bridge decks, bridge deck shoulders and sidewalks)
  1. Minimum, one gallon (3.875 liter) of sealer for each 100 square feet (9.0 square meter);

- Curbs, vertical surfaces of beams and deck slabs subject to direct roadway drainage
2. Minimum, one gallon (3.875 liter) for each 125 square feet (11.5 square meter)
- Other surfaces (for example, parapets, abutments, pier caps and median dividers)
3. Minimum, one gallon (3.875 liter) for each 150 square feet (14.0 square meter)

3. Apply sealer on surfaces in a one-pass operation at the required coverage. Acceptable applications saturate a horizontal surface and take a few seconds before completely penetrating. Broom in the sealer if recommended by the manufacturer.
4. Vertical surface sealer spraying will create runs. Acceptable applications of penetrating sealer developing 6 to 12 inch (150 to 300 mm) runs below the spray pattern. Apply additional passes in 10 to 15 minutes if coverage rate is not achieved with first pass. Apply sealers with brush or roller if recommended by the manufacturer.
5. After 10 to 15 minutes, squeegee off excess material on smooth finished or dense concretes where the required coverage is not absorbed.
6. For sealed sidewalks or other horizontal surfaces with repetitive foot traffic or vehicular traffic, integrate 1-1/2 lbs. per square yard(0.8 kg/square meter) of silica sand into the sealer application to produce a non-skid surface satisfactory to the Engineer.
7. Tint clear non-epoxy sealers with a vanishing dye that will not damage the concrete.
8. Don't apply sealer if the ambient temperature is below 40F (5 C) or will fall below 32 F (0 C) within 12 hours after application.

General. Do not apply sealer if rain is anticipated within 2 hours after application. Clearly mark where the sealer application stops if not continuous.

**864.09 Test Site/Application** Apply sealer to measured coverage areas, both on a horizontal and vertical surfaces, and on different concrete types, demonstrating:

1. The project's visual effects for the epoxy/urethane sealer application at the required coverage rate.
2. Visually, the absorption necessary to achieve the specified coverage rate for the non-epoxy sealer. Use at least ½ gallon (2 liter) of sealer, following the manufacturer's recommended method of application, for the total of the test surfaces.
3. Apply to the deck, safety curb or sidewalk for the horizontal test surfaces Use an abutment parapet or pier face for the vertical test surface and so different textures are tested.

**864.10 Appearance.**

Epoxy/Urethane sealers. Uniform appearance and the final color shall visually match the test section. Re-coating, removal and re-application or other methods recommended by the manufacturer will be