



INDUSTRIAL & COMMERCIAL CONCRETE FLOOR PREPARATION

Introduction: This Floor Surface Preparation Guide focuses on the general recommendations required to prepare a bare or previously finished concrete floor for coating. There may be circumstances under which additional or alternative preparation methods are required. The importance of proper surface preparation when applying a floor coating or any finish cannot be over stressed.

Always make sure to read and understand all label precautions, follow good safety practices and use proper protective equipment when preparing and applying any coating.

Surface preparation consists of THREE PRIMARY STEPS:

- 1. Cleaning and degreasing**
- 2. Roughing or profiling**
- 3. Patching**

STEP 1: CLEANING AND DEGREASING THE SURFACE (Required for bare or previously coated surfaces)

Remove all dirt, dust, soil, grease, oil, efflorescence, loose paint and any other foreign matter by doing the following:

- A.** Sweep all loose dirt, dust and other matter off with a stiff-bristle industrial broom.
- B.** Vacuum with a heavy-duty industrial vacuum or air blast to remove any additional loose material especially in pores and cracks.
- C.** Clean the surface with a mixture of water and a good degreaser such as Assault or X-Tron, following label directions. Scrub the floor with a stiff bristle brush. Change the solution often to ensure efficiency. Rinse completely with clean water before the surface dries and any loose material is re-deposited. Repeat rinsing until the surface is thoroughly flushed. (Heavy deposits of oil and grease should be scraped first to remove as much contaminate as possible and then clean as described above using Assault or X-Tron).
- D.** Any efflorescence, loose paint or other foreign matter that remains should be removed by scraping, wire brushing, pressure washing or abrasive blasting as required.
- E.** Repeat cleaning with the degreaser described in part C above and allow floor to completely dry.
- F.** Test for removal of contaminates and curing agents on bare concrete by sprinkling a few drops of clean water on the floor and watch for absorption. If the water absorbs in a few minutes, it should be clean to continue to STEP 2. If the water does not absorb, repeat parts C and F of this step. On previously coated floors, if the water quickly flows out without balling up, the surface should be clean to continue to STEP 2.



STEP 2: CREATING A ROUGH SURFACE OR PROFILE

(Required for bare or previously coated surfaces)

For any floor coating to adhere properly, the concrete or existing coating must have a sufficiently rough surface or profile to promote maximum bonding between the surface and the new coating. Without a rough surface, optimum adhesion will not be achieved leaving the coating more susceptible to dislodgement and peeling.

Bare Concrete: If the surface is smooth and hard it should be roughened by one of the two following methods. (When complete, the surface should have the roughness of fine sandpaper)

- A.** Mechanically abrade the surface with a shot-blasting, grinding and/or screening machine.
- B.** Etch the surface using Oxall Plus following label directions.

- After performing either roughening method, thoroughly flush and wet sweep the surface with a broom and clean water to remove any acid or embedded matter. Then rinse the surface completely and allow it to dry. If the surface is still smooth, repeat part A or B of this step to achieve the look and feel of fine grit sandpaper.
- Previously coated concrete: Screen or sand the surface to a dull finish using a 60 or 80 grit pad with a floor machine. Vacuum the floor and then flush thoroughly and wet sweep the surface with clean water to remove any embedded matter. Rinse the surface completely again and allow it to dry.



STEP 3: PATCHING

Before continuing, make sure that the following criteria are met with respect to the patching material and/or coating that are to be applied. Follow label directions.

- A.** The concrete has aged sufficiently
- B.** The pH is acceptable
- C.** The moisture content is acceptable

- To ensure that the floor is pH acceptable, the floor should be thoroughly rinsed with water removing any trace of residue that might be present from the cleaner/degreaser that was used to clean the floor.
- To create a uniform surface, it is important to fill holes, voids and cracks in the floor prior to coating. Use Epoxy Waterproofing and Patching Compound to repair large cracks (over ¼"), gaps and holes. Use Sure Patch to smooth over small cracks, pitted or worn areas. Follow the label directions and allow the patching materials to dry before finishing with the new coating.





FLOOR COATING APPLICATION

Please read label directions on floor coating thoroughly before beginning application.

Note:

There is no shortcut to proper surface preparation before applying a floor finish. Spending the time and energy to do the preparation correctly up front will yield the most successful and longest lasting job. A properly selected, prepared and applied floor finish will enhance the appearance of the floor, reduce dusting, ease cleaning and promote the long-term integrity of the concrete.

Warning: Floor should be completely cured prior to adding any weight to it. Foot traffic is fine, but adding any substantial weight like an automobile or heavy rolling equipment will cause the floor coating to release in the affected areas.

Warning! If you scrape, sand or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

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