

NOTE: These steps are very basic and are conditional; they may be altered, added to or modified to suit specific concrete contamination types, levels and/or any specific project parameters and conditions.

1. Remove any water-sensitive machinery, objects and materials from the cleaning area. Cover any that cannot be moved with suitable plastic sheeting.
2. Mechanically remove all existing coatings, adhesives, patch, feather finish or self-leveling materials using a planetary grinder or best machine method.
3. Perform core testing if possible and time/funding allows. Cores taken should be 3" in dia. X 2" in depth. Do not go all the way through the concrete. Have core analyzed by a reputable lab that analyze hardened concrete. The testing we recommend is the IR (Infrared Spectroscopy) and the IC (Ion Chromatography). Please consult the ACTECH Core Test Worksheet for additional details.
4. Depending on the levels of organics/hydrocarbons or other contaminants, the prep methods will differ. For lightly to medium contamination (200 - ~1500 ppm) and depending on the type; prep required may be just a double shotblast to a CSP 4 – 5. If levels are much higher or of heavier contamination, additional cleaning may be required. Consult the ACTECH Technical Team for guidance.
5. Shot Blast or grind the deck to an ICRI CSP – 4 profile, removing any surface oil crusts and opening the concrete cap. Remove all fugitive shot, dirt and debris from prep with a magnet broom, brooms and/or vacuum unit. If these crusts or surface oil contamination are too heavy and may gum up or otherwise damage surface preparation machinery, it may be necessary to pre-clean with the OBS™ - Detergent prior to surface prep.
6. Use magnet "broom" to remove all fugitive shot from deck, cracks and any "bug-holes", vacuum to a dust-free surface.
7. If the contamination warrants; for very heavy contamination; apply the OBS™– D, (Detergent), using a dispensing wand (foam-gun) or simply pour onto deck and spray or squeegee liberally around area to be cleaned.
8. Mix Ratios for the OBS Detergent (OBS-D) and potable water:
 - Medium to heavy contamination: this will be ~ 5 – 1 mix ratios (water to detergent) ~ 5 -parts potable water – 1-part detergent to and let this sit on the contaminated deck for ~ 40 – 50 minutes.

NOTE: the mix ratio may be modified to suit the apparent level of contamination. If very heavy contamination is present lower the mix ratio to 2 or 3 – 1; and conversely, if the contamination appears to be very light, raise the ratio upwards to 10 – 1. This will be an onsite call and different areas of the same slab may require modified amounts of detergent in those areas. Keep in mind that the detergent is a concentrate and requires more rinsing the heavier the ratio of detergent to water is.

- Use a walk-behind or ride on floor scrubber with stiff bristle brushes and scrub the floor in a pattern leaving no areas un-scrubbed. NOTE: Do not put the OBS-D detergent, in the walk behind tank, as it is very concentrated and may actually remain in the tank and be very hard to totally rinse out. If the material is foaming excessively, use an anti-foaming additive or increase the mixture ratio with more water.
- Rinse completely until no foam is visible, do not let any water remain in puddles, cracks or bug-holes, coating must follow immediately.

- On very lightly contaminated concrete: a double shot blast using appropriate size shot to achieve a CSP 4 – 5 will be sufficient. Shot blast once in one direction then the second pass 90° from the first pass. Coating must follow immediately.
9. If a walk-behind or ride-on scrubber is not practical, unavailable, or the space is too small, the use of a “turbo-nozzle” and a high-pressure power washer (not less than 4000 psi) for heavy to medium contamination. Make sure that all areas are covered with the nozzle with no missed areas and be aware of overspray damage. This nozzle is also good for tight areas, cracks and expansion joints and around immovable objects. If excessive foaming is observed, a de-foaming agent may be necessary to cut down on foaming.
 10. The OBS™ Detergent is VOC & Solvent-free. Rinse with fresh water and vacuum up all standing water. Repeat this procedure if necessary,). Thoroughly rinse deck with fresh potable water, it is imperative to remove all detergent by rinsing OBS™, observe that no suds are recurring during final rinse, continue rinsing until water is “suds-free”. If the water contains high levels of hydrocarbons or other materials which may be considered hazardous, then collect wastewater into suitable containers for HazMat collection. Check all local, state and federal guidelines and regulations concerning the disposal of the wastewater. Leave no standing water or puddles, leave the deck damp but no puddles.

NOTE: No matter which preparation type you perform, shotblasting alone or washing: if you prep or clean the concrete, it must then be coated that same day-Coating must follow prep/cleaning as soon as possible. DO not let the prepared or cleaned concrete sit overnight or for any extended period- if it is left, then it must then be re-preped or cleaned.

11. When satisfied that the deck has been cleaned, or dust removed and/or deck thoroughly rinsed, mix the OBS™– C, (Coating), **NOTE:** pre-mix the “A” component making sure that you get all the solids off the sides and bottom of the can, (especially the bottom). Using a ½” drill with a jiffy type mix-blade, thoroughly pre-mix material until no lumps of material are seen. Good practice is to pour contents of the “A” component into another bucket after some pre-mixing and then scrape any residual material out of the can with a mixing stick or suitable scraper, then pour back into original can. When “A” component is thoroughly mixed, add the “B” component to the “A” and mix for a total of three (3) timed minutes.
12. Pour contents of mixed bucket onto deck in long ribbon, spread with a flat-blade or a notched (16 mil) squeegee and back-roll with a phenolic core, ¾” nap roller either 9” or 18” length roller. Coverage: ~ 100 square feet per gallon must be adhered to. Do not roll out too thin, maintain a 16-mil thickness (WFT) throughout the coating procedure. If in an interior space, provide indirect ventilation during the product cure phase. The OBS™ has a small solvent content (< 3%), it has a slight odor but is VOC free.

NOTE: Mixed Material Pot Life is About 50 minutes Depending on ambient Temperature and Humidity.

13. Due to the nature of this epoxy formula, the final coating may/will develop an amine blush which will be a bond breaker for subsequent coatings. For subsequent coatings adhesion, a sand broadcast must be done ~ **20 minutes after application (sooner or a bit later depending on ambient conditions)**; broadcast to rejection. Use a washed and dried sand with a sieve size appropriate to the application (especially if a polishable underlayment is to be installed), or for epoxy and similar coatings a sieve size of 50 – 60 sand may be sufficient, such as Q Rok #1 by U.S. Silica. **DO NOT USE PLAY SAND OR ANY TYPE OF WET SAND.**
14. Make sure personnel wear proper protection; PPE (new OSHA Silica rule; #3681). The sand is only for the adhesion of any subsequent coating systems, such as paints & deck coatings, urethanes, epoxies, self-leveling, patch or feather finish. Broadcast sand sieve size to suit final floor. After broadcast, let cure for 12-hours before applying subsequent coatings or flooring. Cure times are dependent on ambient temperatures and humidity; cold and damp-longer; hot and dry- faster. Sweep up all excess sand, which may be reused if clean and dry.

15. The OBS™ System with sand broadcast will withstand ~10 lbs MVER or ~85% RH moisture levels (these are approximate levels only); if levels exceed these limits, then the AC TECH™ 2170 Moisture Mitigation System must be applied over the OBS™ to mitigate the moisture.

Direct questions to: AC TECH Technical Staff @ (757) 855-5100

OR

Mac Krauss: Cell (757) 615-1814

Alex Rogers: Cell: (423) 400-0572