Specifications for
Application of Fluorolast WB Protective Coatings onto
Concrete Surfaces

A. Suitabilty to Application

Refer to and read the MSDS for this product. A Fluorolast representative may be requested to assist with questions pertaining to the use or application of its coatings.

B. Equipment

1. For best results, use airless spray equipment to apply Fluorolast coatings onto concrete surfaces. While air-assist spray equipment (cup gun) may also be used in some cases; brushing, squeegee-ing, or rolling the coating onto the surface is NOT approved or acceptable.

2. Special protective clothing may be optional when applying Fluorolast coatings. Customary measures such as goggles and a simple breathing apparatus (to filter suspended particles from entering the nose and mouth) are recommended. The coating is not normally an irritant to skin. Please refer to the MSDS on the product.

C. Primers Epoxy

1. In order to seal the concrete and provide a surface most conducive to adhesion of the Fluorolast coating, only a HIGH quality, epoxy primer (specified by its manufacturer for concrete) will be used.
2. A properly applied epoxy primer should be able to penetrate the porousity of the concrete, provide a moisture and outgassing barrier, and serve as an anchor coat for adhesion of the Fluorolast WB topcoat. The facility owner or engineer will keep Fluorolast apprised of the primer to be used.
3. Primer used may be either water-borne or solvent-borne type depending on concrete conditions and/or intended service.

D. Application of Epoxy Primers

Follow the epoxy primer manufacturer s instructions with regard to all facets of successfully applying its primer coating. Including:

1. Suggested surface preparation, cleaning, and profile. Also:
2. Minimum and maximum temperature conditions for application,
3. Primer thickness recommendation, drying and cure time, suggestions/procedures for topcoating
4. All other pertinent specifications of each respective manufacturer

E. Application of Fluorolast WB Coatings

As called for by the type of application, the Fluorolast coating used for concrete will be from series WB200 (ambient curable). For most types of applications, do NOT add water or any other ingredients of any kind to the Fluorolast coatings as, this could negatively affect the delicate balance of their formulas.

A key point is that, as with all Fluorolast WB products, the coating should be applied in a moderately wet thickness amount (not overly generous that it would result in heavy pools of standing wet coating). Applying relatively thin coating layers will not only allow the coating to dry faster and more uniformly; but will also greatly reduce the risk of water entrapment and blistering.

When ready to begin application, pour the catalyst into the container of Fluorolast WB product selected. Stir (never shake) sufficiently for a few minutes so that it will go into solution with the coating.

Dependent upon the type of application involved, Fluorolast may recommend the optimum dry film thickness (dft) of the protective coating required. Upon acceptance by the facility owner and/or engineer, the protective topcoat will be applied as follows:

1. For best results, atmospheric temperature conditions as well as surface temperatures of the substrate should be at least 60° and may be up to 140° F with certain application precautions taken.

2. Surfaces not to be coated may be shielded or covered (tarp, plastic, etc.) to reduce potential over-spray contact. However, due to the dry fall nature of the coating, surfaces of objects in relative proximity may only receive a harmless dusting of dry particles with no appreciable adhesion capabilities.

3. The two-component Fluorolast WB200 series coatings are delivered with a pre-measured catalyst (7% by wt. /10-1 by volume) in a small, separate container. The catalyst should be added about 10 minutes prior to the intended application of the coating and stirred (not shaken) thoroughly prior to use in order to achieve uniform coating dispersion.

4. Using airless spraying equipment, the Fluorolast coating should be applied in multiple passes onto the prepared surface. It is imperative that the coating NOT be applied too heavily per pass to avoid problems with runs, drips, and water entrapment within the coating. In an environment with less than ideal conditions, too heavy an application can result in the formation of blisters and ultimate coating failure.

5. As with any other coating, drying time projections are dependent upon variable conditions such as: atmospheric temperature, relative humidity, wind speed, direct sunlight, etc. Under less than ideal conditions (minimum atmospheric and substrate temperatures, high RH); spray on Fluorolast WB coatings in a manner that will produce only about 1½ mils wet thickness per application. This will result in about a 1-mil dft (dry film thickness) which may be attained in about 20 minutes or less. In room temperature applications, applying the coating too thickly for conditions could make necessary a much longer drying time (an hour or more) before re-coating.

6. In the most IDEAL environments where both the atmospheric temperature and that of the substrate are considered very warm or hot (80°F 140°F+), and, with an experienced applicator, it may be possible to apply the Fluorolast WB more heavily via more passes of the spray gun. This advanced procedure can be successful only when great care is taken. When done properly, however, the desired dft may be achieved in less time by reducing the number of coating applications necessary.

a. Under the above conditions, Fluorolast WB may be sprayed repeatedly onto the target substrate. Here, as many as two, three, four or more passes of the Fluorolast coating hit the concrete substrate. Each continuous pass will appear to dry almost on impact to a DULL finish. Each pass will also cause the concrete substrate to cool slightly.

b. CAUTION: When a spray pass is made which results in a wet or shiny finish, then STOP! The substrate has now been cooled to the point that to continue applying coating could result in water entrapment and ultimate failure. It is now imperative that this section be allowed to dry to the touch before additional coating is applied using this same procedure. To repeat this procedure, the concrete substrate s surface temperature must be allowed to become very warm or hot as before.

c. While concrete substrates are typically located in fixed locations; they are sometimes beneficially exposed to direct sunlight often resulting in reduced cure time via the sun s infrared heat generation.

7. After the coating has been allowed to dry to the touch, (and depending upon which of the above two application methods were used) the second and subsequent coats may then be applied in the same respective procedures until the desired film thickness has been achieved.

a. Thus, in a worst case scenario; for a dry film thickness of 10 mils of Fluorolast WB; the coating procedures under the less than ideal conditions may require as many as 10 individual spray applications.

b. Conversely, when more ideal conditions are present along with a very warm or hot substrate, the amount of application passes and associated drying times between them can be reduced. Similarly, the amount of time involved in the coating process would be significantly less. However, it should be emphasized again that this method should be attempted ONLY when the surface temperature of the substrate is suitably elevated and then, only by an experienced applicator.

8. DFT of the Fluorolast coating can best be measured with an electronic thickness gauge.

9. The Fluorolast coating may be applied around penetrations such as pipes, drains, pumps, and tank bases to provide chemical protection in these areas also. For this reason, it is recommended that whenever possible, a fluoroelastomer caulk or extrusion be utilized where expansion joints, cracks, or where application of coating would not otherwise suffice. The Fluorolast coating will normally adhere to these materials very well and, also help form a seamless barrier of protection against corrosion.

10. The Fluorolast coating should be applied at sufficient and uniform thickness through out the surface area to be coated to insure the successful performance of the coating. As mentioned above, Fluorolast will make recommendations as to the optimal dry film thickness for each application in advance of the coating being applied.

11. As for containment areas, the Fluorolast coating shall be applied at sufficient height on the walls of the concrete so that any spill of the largest container is below the point where the coating ends on the walls. Prudence dictates that the coating be applied up and over the top of the wall to provide adequate protection against spills, and to insure adequate anchoring of the product.

12. Be continually vigilant with regard to maintaining a clean, dry surface both prior to and during application of the coating when, due to work conditions, the work area could become susceptible to dust or other contaminants. These must be removed prior to the initial coating application by wiping the surface with a clean cloth and Acetone. Soon after it is allowed to dry, the Fluorolast coating may simply be wiped clean with a suitable damp, lint-free cloth prior to subsequent coating applications.

13. If it becomes apparent that the workday will end without completion of the application project (with regard to achieving desired dft); it would be advisable to finish the current coating pass over the entire project substrate in order to assure uniform dft to that point. Afterwards, upon returning to the work site to continue the application process, it is recommended that you take care to inspect that the surface still remains free of contaminants and dust before commencing with additional applications of the coating.

14. Depending upon conditions during application, Fluorolast WB coatings will remain receptive to multiple coats prior to full-curing. However, it is not desirable that subsequent applications of coating for achieving dft be applied over cured or nearly-cured coating without adequate surface preparation.

15. In very warm or hot environments or where the coating is subject to direct sunlight there is a likelihood of significant increase in the speed of the cure process. Thus, when these conditions present themselves; consider dividing the entire project area into smaller individual sections which, could then be more readily brought to desired dft in a reduced timeframe.

16. Take care to prevent contamination of the newly-sprayed, uncured surface during the application process itself by protecting the substrate against dust, solvents, and other undesirable impurities prior to its receiving its final coating application. For this reason, applicator personnel working, or walking on or around the uncured work surface should wear Tyvek type shoe covers.

17. All solvents should be stored outside of the area to be coated so to prevent the possibility of contamination during the application process.

F. Clean Up Procedure

Personal clean up is done with warm water and suitable detergent for washing followed by a warm water rinse. Cleaning of tools and spray equipment is similarly easy with this method. If the coating has been allowed to dry for a long time on (or in) the spray gun equipment and can no longer be easily removed with soap and water, Acetone or MEK will work well.

G. Cure Time of Fluorolast WB Coatings

1. Under normal circumstances, the ambient-cure coating formula Fluorolast WB200 will cure after approximately 5 to 7 days from the end of application. Again, as with any other coating, ambient cure time projections are dependent upon variable conditions such as: atmospheric temperature, relative humidity, wind speed, direct sunlight, etc.

2. Certain conditions (ie. areas of very warm or hot temperatures within industrial plants) exist which may reduce the cure time for WB. Concrete substrates located outdoors in fixed locations, are sometimes exposed to the benefits of direct sunlight often resulting in reduced cure time via the sun s considerable infrared heat generation.

H. Maintenance of Fluorolast WB Coatings

1. Care should be taken not to perform activities on the coating before it has been fully cured. Similarly, if solvents or other chemicals are to be used in the coated area, be sure they are compatible with the chemical resistance of the Fluorolast coating as originally intended.

2. Hot work (blow torch, welding) should not be performed in coated areas unless a heat blanket is used to protect the coating. Fluorolast coatings are formulated to minimize hazards from hot acids and chemicals; not against contact with super high temperature sparks and cinders.

3. Fluorolast WB coatings are formulated to stand up to incidental foot and vehicle traffic. If it is necessary to bring heavy equipment into the coated area, be cautious in order to avoid damage to the coating. For example, a location may have a need to coat an area where gravel or other sharp objects may become embedded in the tires of vehicles that will be operating on the coated surface. A sacrificial rubber mat or sheet of sufficient thickness (two old conveyor belts) placed over the coated area could protect the coating from being punctured

4. Fully-cured Fluorolast coatings are designed to withstand normal operating conditions as discussed with your Fluorolast representative prior to application. If conditions other than those discussed do arise, please contact Fluorolast before attempting to address those conditions.

I. Repairing Damaged Fluorolast WB small areas

1. In case of damage after the Fluorolast coating has been installed, the coating may be easily repaired with additional coating and a heat gun or blow dryer.

2. Use a clean cloth and Acetone to wipe the damaged area to liven the surface of the coating. Next, (depending upon the size of the damaged area) spray on consecutive coats of Fluorolast (allowing each to dry before applying the next).

3. Take the heat gun or blow dryer and, holding it far enough away so as not to burn or singe the coating, use it to help dry the coating after each of these applications.

4. Finally, after reaching the desired dft, cure the patch with the dryer by aiming heat at the patch for about 15 minutes. The job is finished.

J. Repairing Damaged Fluorolast WB large areas

If a larger area of Fluorolast coating becomes damaged, the company should be made aware of the situation. Any major repairs should be approved by Fluorolast in advance.

K. Coating Storage and Shelf Life

The WB-200 coatings from Fluorolast are two-component formulations with a shelf life of six months. However, after the introduction of the catalyst, pot life is then just 2 to 3 days depending upon conditions present.

Due to the high solids content of this product, WB coatings must be agitated weekly while in storage. The easiest way to accomplish this is to (with the lid fully secure) periodically turn the container over (upside down) and allow it to rest on its it s top (ie. for a few days or a week) then back on it s bottom (right side up). Repeat this procedure at regular intervals. This allows the solids to remain dispersed in the solution of water and prevent their settling and compaction.

L. Contacting the Company

Fluorolast is available to assist you when you encounter questions involving the application and use of its protective coatings. Please refer your questions and requests for information to us by phone during regular business hours at (800) 785-3601. You may also contact us by fax or e-mail. Our WEB site address will also contain an abundance of useful information about our coatings: **www.fluorolast.com.**