

## Using Envirotex Lite for Streambeds

The following information and tips will help you achieve professional results on simulating the water found in most streams.

Familiarize yourself with the following procedures by practicing on a small sample first.

Required tools:

1. Plastic clear Solo cups (16oz.) for measuring and pour & straight sided, flat bottom disposable paper or plastic paint pails for any leaks. Do not mix in a wax-coated container, as the wax coating may break free contaminating the mixture.
2. Stirring paddles must have a straight edge, such as a paint paddle, to allow the mixer to constantly scrape sides and bottom of mixing container. Suggest wooden tongue depressor squared off on one side will also work.
3. Plastic spatula, cardboard or business cards work well to help spread the Envirotex Lite over larger areas.
4. Envirotex Lite available in 16 and 32oz sizes from many commercial suppliers including Amazon.com. On average use 4-to-6 ounces of Envirotex Lite per square foot.
5. It is very helpful if you can get someone to help you do the mixing. Turn the time into a learning experience for several of your fellow modelers.

### Coating area conditions:

A clean, dry and dust free room is a must.

All polymer compounds react to high humidity. Using Envirotex Lite in a room where humidity is below 50% will give best results. High humidity can cause an oily looking film on the finished surface that can be repaired by re-coating in a room at the correct humidity. Placing an inexpensive weather set in your coating room will help you with knowing room temperature and humidity. The lower the humidity, the faster and harder the cure. If high humidity is a problem, the use of a dehumidifier in your coating room will help remove moisture in the air.

For best results, pour at temperatures between 70° F to 80° F. Higher room temperatures after pouring will help to speed up cure rate as well as hardness.

### Surface:

The surface to which Envirotex Lite is applied to should be:

- Dry and free from dust, dirt, oil, grease, etc.
- Level
- The surface to be covered, whether Foam or plywood, should be painted thoroughly with either a latex or oil base paint the color of the streambed

### Work Site Preparation:

If the streambed extends to the edge of the layout, at the edge, make a dam out of masking tape to keep the epoxy from escaping. Seal all cracks and crevices - anywhere the liquid could leak out - with acrylic caulk. Be thoroughly satisfied that you have prepared the streambed to your final design.

Cover any in-place bridges or structures with saran wrap to prevent drips from spoiling the surfaces.

Protect your finished pour if the work area is dusty. Use a plastic drop sheet to keep dust and lint particles out while Envirotex Lite sets.

Protect the area beneath the pour and on the floor with plastic drop clothes to catch any leaks coming from the pour.

### **Application:**

Before beginning, ensure that the resin & hardener bottles are slightly warm to the touch. (70° F). If not, place both bottles in warm, not hot, water for 5-to-10 minutes prior to using. As a result, the resin and hardener will measure easier and mix better with fewer bubbles

Pour the resin and hardener each into a separate measuring cup. Measure the Envirotex Lite resin and hardener into exact amounts by volume (I used a two inch line on the outside of the measuring cup). Do not guess at the proper ratio or just empty the two bottles into your mixing container. Use two clear plastic Solo cups marked exactly alike for the measurements. Draw a line on the cup for exact measurements. Unless you measure equal portions of resin and hardener, your ratio will very likely be inaccurate, resulting in a soft sticky coating! Determine the amount of fluid to be used by measuring the top and sides of your project.

Then, when ready to begin, mix the measured resin and hardener in a third, clean, straight sided, fiat bottom plastic container. Use a 16 oz. clear plastic Solo cup. Cut a tongue depressor square or get a free paint mixer from the paint store and use any of these to mix the Envirotex lite. Scraping sides and bottom continually while mixing is a must! Vigorously stir the mix in a circular and vertical pattern.

Mixing should be completed after exactly **2 minutes** of steady stirring. Improper mixing will result in soft or tacky spots that will not cure! Try not to introduce bubbles into the mix while stirring.

Then, **pour, and do not wait!** Pour over surface in a down stream pattern. Start close to the edge and work towards the center of your work. It may be helpful to use a ¼" steel rod (about 8" long) to place at the bottom of the cup allowing the liquid to flow down the rod in a laminar flow.

This will allow the Envirotex Lite to level from the center out to the edges of your work surface. Help spread where necessary with a stiff piece of paper or plastic spatula or the metal rod. Be careful not to spread too thin resulting in a wavy surface. Use a helper for mixing and pouring large objects. The pour should be about 1/4" in depth.

Pour the rest of the mix into the middle of the streambed and work it to the edges with the pouring sticks.

One person(s) can mix while the other pours the coating. Caution: If Envirotex Lite is left in the mixing container, it will become hot and set up rapidly! When finished with a pour from the mix container, thought the container out.

Quickly repeat the above steps for all additional pours, remembering to use clean cups for measuring and mixing.

**Working time with Envirotex Lite:**

If you pour immediately after mixing, you will have approximately 25 minutes of working time at 70°. Less time for warmer temperatures.

**Removing Bubbles:** Within 10 minutes of pouring, air bubbles created while mixing will rise to the surface and begin to break. Exhaling across the surface at this point will break bubbles.

However, on large surfaces **the limited use of a small heat gun** is the easiest and most effective method of removing air bubbles. Note: I do not recommend the use of a hair dryer for removing bubbles. Hair dryers will potentially blow lint from the surrounding air or internal to the dryer onto your work!

**Tinting:**

If necessary, add small amounts of cerulean blue acrylic paint to the mixture. Adding color comes with some risk as it extends the mixing period. It is far better to have prepared the bottom of the streambed before adding the crystal clear Envirotex Lite. Most streams are not blue anyway, so why fake it.

Most streams can be replicated without any color added to the mixture.

**Setting Time:**

Envirotex sets in 5 to 7 hours. After 12 hours (at 80 degrees), it will set hard and smooth, and it will cure completely in 72 hours (three days).

**Cautions:** Although Envirotex Lite contains no flammable solvents, the objects you are coating, as well as surrounding table covers, etc., may be flammable so be careful. There also do not seem to be any problems with odors emitted during the pouring or drying.

**Flat straight edges:** If you are applied this technique to large deeper areas like ponds, lakes or bays, after a number of successive ¼" Envirotex Lite coats, wide flat edges can become slightly wavy. Sand the wavy edge flat using 120 grit papers. Wipe edge clean and apply your final flood coat.

**Satin Finish:**

The Envirotex Lite surface will dry with a high gloss finish. If you wish a matte finish, use Pumice or Rottenstone polishing powder and a wet sponge. Lightly wet the Envirotex Lite surface, and then sprinkle it with polishing powder. Apply a firm, slightly wet sponge and move in small circles until the entire surface gloss has been removed. Wipe surface clean to remove all abrasive material, then apply a carnauba automotive or floor wax and polish with a soft cloth.

Envirotex can be also left as is, or treated as discussed to present a matte finish, or if you really want a professional model, you can add ripples and rapids by finishing with acrylic gloss mediums and paint which is the subject of additional papers.