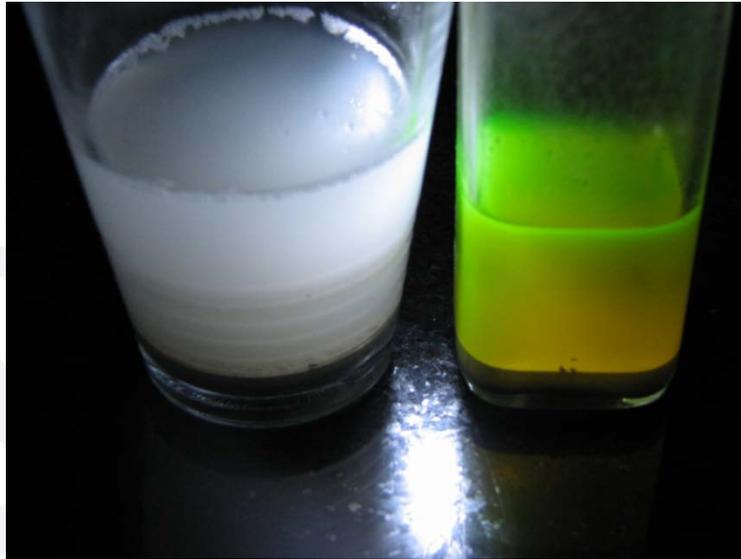
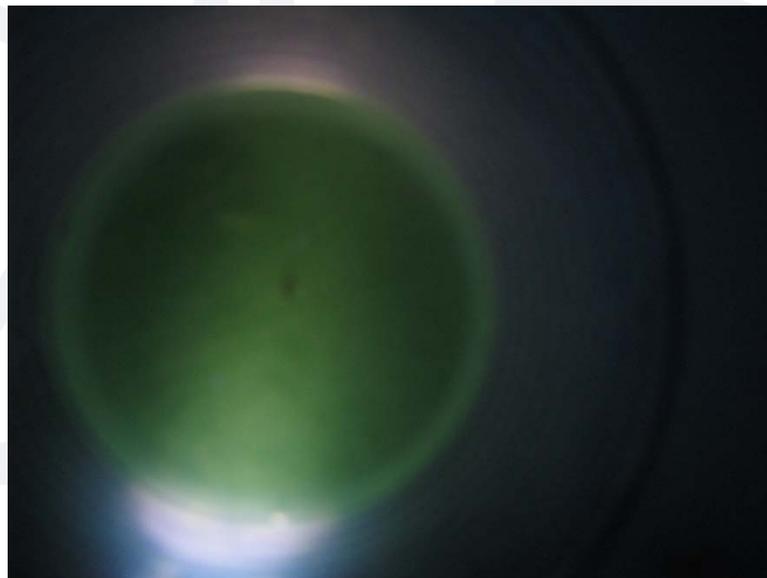


## PENETRON ADMIX TRACER

- 1) Penetron Admix Tracer (PAT) is Non-Toxic.



- 2) When added directly to water PAT creates a Fluorescent green color mix water visible in normal light and highly fluorescent in UV light. (photo above shows plain concrete mix water compared to neat Penetron Admix Tracer)



- 3) When PAT is mixed with concrete at 1% dosage rate **PAT is not detectable in normal light and requires the use of a UV Light to view it.** (above photos shows Tracer under UV light)

- 4) Concrete Producers should be advised not to be alarmed if PAT residue falls on ground water and the green becomes evident. They should consider it proof that the tracer is present and additional confirmation of its presence in the mix. Readymix truck drivers should also be advised so that they do not assume that there is antifreeze or coolant leaking from their trucks.
  
- 5) Procedure for identifying PAT in fresh, wet concrete.
  - 1) Materials:
    - a. UV Light (490 nm wavelength preferable), but any UV light in general should work.
    - b. Small, clear, wide mouthed bottle – 2 each
    - c. Paper Towels
    - d. Clean water
  
  - 2) Test Procedure:
    - a. Take a sample of the fresh, wet concrete to be tested for PAT. No aggregate is required, only the plastic matrix.
    - b. Place concrete sample in the first clear bottle. With a damp paper towel, clean the interior surfaces of the bottle above the sample and the exterior of the bottle for a clear view.
    - c. Let sit for 10 minutes for the cement to settle and bleed water to clear up.
    - d. Fill second clear bottle with water and put aside.
    - e. The remaining procedure must be done in a darkened room (**pitch black will produce most visible results**)
    - f. After the allotted time, bleed water in the PAT sample bottle will settle on the top of the setting matrix. Tilt bottle slightly to let as much of the bleed water gather in one spot and shine the UV light through the bottle from the side. The faint green fluorescent glow in the water should be apparent.
    - g. For on the spot visual comparison. Shine the UV light through the bottle of plain water. No green Tracer will be visible.
  
- 6) Procedure for identifying PAT in already hardened concrete.
  - 1) Materials:
    - a. UV Light (490 nm wavelength preferable), but any UV light in general should work.
    - b. Hammer drill
    - c. One (1") inch masonry bit
    - d. Small, clear, wide mouthed bottle – 2 each
    - e. Paper Towels
    - f. Clean water

## 2) Test Procedure:

- a. Using the hammer drill and masonry bit, drill into the concrete a minimum of 1 ½" deep. **(NOTE: In direct sunlight, the tracer ingredient has a limited lifespan of approximately a week. As such it is important to obtain a sample deep enough into the concrete where no light has penetrated)**
- b. Collect all of the concrete dust. Most especially the dust that is created from the deepest part of the hole.
- c. Place concrete powder into the first clear bottle and add enough water to cover the sample with approximately 1/8" of water.
- d. Swirl gently in a circular motion.
- e. With a damp paper towel, clean the interior surfaces of the bottle above the sample and the exterior of the bottle for a clear view.
- f. Let sit for 10 minutes for the cement to settle and water to clear up.
- g. Fill second clear bottle with water and put aside.
- h. The remaining procedure must be done in a darkened room **(pitch black will produce most visible results)**
- i. After the allotted time, the ground PAT concrete will settle in at the bottom of the bottle leaving clearer water above it. Tilt bottle slightly to let as much of the water gather in one spot and shine the UV light through the bottle from the side. The faint green fluorescent glow in the water should be apparent.
- j. For on the spot visual comparison. Shine the UV light through the bottle of plain water. No green Tracer will be visible.