FOXFIRE P-1007 CONCRETE SEALER

Foxfire Concrete Sealers are being successfully used by contractors throughout the United States and Canada. Two projects, the Corpus Christi Texas Seawall Reconstruction Project and recently the salvaging of a 46,000 sq ft very porous concrete slab at the PPG Plant in Sulphur, Louisiana are briefly described to illustrate how Foxfire P-1007 is used.

Foxfire's product line is unique in that the hydrophilic properties of our products seal cracks, capillaries, honey-combs, and joints in concrete in order to prolong the useful life of the concrete through quality repair, restoration, waterproofing and protection. Foxfire products are non-toxic, water-based, and environmentally safe.

Foxfire sealers are formulated clear sealers that have a penetrating inorganic potassium-sodium modified material that "fuses" with the concrete to stop water, oil, gas, grease, salts and other fluids from damaging the concrete yet still allow the concrete to breathe. Our sealers react with the alkali in the concrete to form a penetrating micro-solution which hardens and consequently densifies the concrete. Foxfire P-1007 and S-1007 sealers penetrate 2" to 4" into the substrate of the concrete (depending upon the concrete composition), harden and become an integral part of the concrete resulting in a much denser and stronger concrete. The sealer also "coats" the rebar in the concrete to prevent deterioration from moisture and contaminants.

Foxfire can also offer technical support and hands-on-knowledge and expertise in all phases of moisture vapor emission control, exterior concrete/masonry cleaning and restoration, waterproofing and sealing, and concrete/masonry coatings including 8-10 second fast-set tack-free coatings which can be hot or cold applied.

PENETRATION OF FOXFIRE P-1007 TEST

June 19, 2006: Mixed a fluorescent dye (compatible with the size of the Foxfire P-1007 molecules) into Foxfire P- 1007 and applied the solution to a piece of 4” thick concrete.

June 21, 2006: Sheared the concrete test pattern piece to view penetration of Foxfire P-1007. Using an ultraviolet forensic black light to highlight the fluorescent dye, we viewed penetration of Foxfire P-1007 as deep as approximately 1” to 2 ½” into the concrete substrate.

June 23, 2006: Sheared another piece off the concrete test block. Using the ultraviolet forensic black light to highlight the fluorescent dye, viewed that Foxfire P-1007 had, over the time lapse since application, had penetrated to approximately 2 ½ “ to 3 ½ “ into the substrate of the concrete.

NOTE: Dense areas of the concrete test block did not show penetration as deep as did the portions of the concrete test block that were more porous.

CORPUS CHRISTI TEXAS SEAWALL RECONSTRUCTION PROJECT

Foxfire P-1007 was specified with no alternate being acceptable in the Reconstruction of the Corpus Christi Texas Seawall Project. Over a 5-year period, a new sheet pile watercap was installed on the entire length. A hot (160 degree F) applied plural component polyurea was sprayed on the watercap top and down 6" of its face. This concrete watercap was submerged in the salt water bay with only about 6" to 22", depending upon the tide, above the water line. The concrete watercap constantly had a moisture content of 100%.

In order to get proper adhesion of the polyurea and without pin-holing, the moisture content of the concrete watercap had to be lowered to acceptable rates. Foxfire's P-1007 was the only sealer able

to do this. After proper surface prep, the P-1007 was applied to the concrete. Within 72 hours Foxfire's P-1007 locked the moisture in the concrete leaving the surface moisture content at an acceptable level to accept the hot-applied plural component polyurea without pin-holding.

PPG PLANT

(Sulphur, Louisana)

In March 2007 Foxfire P-1007 Sealer was applied to approximately 46,000 sq ft of concrete at PPG Plant in Sulphur, Louisiana. Foxfire was called because the concrete was so porous that it seemed the only solution was to demolish and re-pour the entire slab. A person could, by scratching with very little effort with a screwdriver, penetrate approximately 1/8" into the concrete. On March 2, pull adhesion tests performed on the porous concrete with read between 185 psi to 250 psi.

Foxfire P-1007 Sealer was applied to refusal to the porous concrete. After 24 hours, adhesion pull tests were once again performed in the same general areas. The readings were now 400 psi to 535 psi. A hot-applied plural component polyurea coating was then applied.

One week later adhesion pull tests were once again done with readings of 900 psi to 1200 psi. Some of the pull tests indicated more than 1600 psi when the adhesion dials broke loose from the polyurea coating. Polyurea, a highly chemical resistant coating, is a difficult coating for adhesion of pull test dials.