

Liquid additive for Parson MH Liner & Parson CA Liner 100 to eliminate the growth of bacteria that causes Microbial Induced Corrosion (MIC) in manholes and other similar structures



ConBlock MIC
Antimicrobial Concrete
Admixture / Surface Treatment

The ConBlock MIC Treatment

As a concrete treatment, ConBlock MIC is extremely effective against mold, fungi, algae and damaging bacteria. Unlike sacrificial or leaching chemistries, the technology of ConBlock MIC controls microorganisms with a chemistry that remains a permanent part of the concrete structure. The active ingredient in ConBlock MIC – *3-(trihydroxysilyl) propyldimethyloctadecyl ammonium chloride* - relies on a charged ion and a unique spiked molecular structure to create an uninhabitable environment for the microorganisms. These molecular spikes are undetectable to human touch, but overmatch single-cell organisms. In nature, most microbes carry the opposite ionic charge so they are physically and irresistibly drawn into contact with ConBlock MIC, which punctures the cell walls of the offending microbes.

ConBlock MIC vs. Thiobacillus Bacteria

The species of bacteria responsible for the biological corrosion of concrete caused by Microbial Induced Corrosion is Thiobacillus. In the proper conditions, several strains of Thiobacillus exist. As the Thiobacillus thrives, it lowers the pH of the concrete surface, creating an optimum environment for the next, more damaging Thiobacillus strain to inhabit the concrete. When tested against the damaging Thiobacillus bacteria, ConBlock MIC shows great success (See Back for Test Results). Without the bacteria that generate the damaging sulfuric acid, the concrete is protected from Microbial Induced Corrosion.

In the Mix and On the Surface

- Antimicrobial treatment permeates the entire concrete when added in the mix, protecting inside and out.
- The treatment cures into a cross-linked polymer, bonding with the aggregate and cement to impart durable protection.
- The antimicrobial polymer that is formed causes the microbe cell walls to break upon contact, keeping the surface free of excess bacteria and mold buildup.
- The treatment does not migrate out of the concrete.
- ConBlock MIC is EPA registered and labeled for concrete and stone applications.
 - This antimicrobial product has provided safe and effective treatment for over 30 years.

Independent Laboratory Testing

ASTM D4783 Adapted for determination of antibacterial resistance of concrete to thiobacillus sp. **ISO 22196** Modified Method for Concrete, pH ~6.8

Reduction of Bacteria growth in 24 hours, pH ~9.0:

Thiobacillus novella	99.9%
Thiobacillus intermedia	99.9%
Thiobacillus thioparus	99.9%

