General Specifications
The intent of the antimicrobial additive, ConBlock MIC, is to render the concrete uninhabitable for microbial growth. In addition to Project Specifications, the following are general specifications for the use of antimicrobial additives in new concrete infrastructure and cementitious infrastructure repair products. Specifiers can use this language in whole or part for specifications in concrete pipe, manholes, and septic tanks, or for ready mixed concrete or cementitious mortars and liners.

a) The liquid antimicrobial additive shall be an EPA registered material.
b) Required submittals for approval prior to use on the project:
   - US EPA Product Registration Number.
   - State pesticide registration documentation, where required by law.
c) The producer shall submit a Quality Assurance Plan for the use of this antimicrobial additive.
d) The amount of additive and the proper mixing procedures used shall be as recommended by the manufacturer of the antimicrobial additive. The additive shall be added into the concrete mix water to ensure even distribution of the additive throughout the concrete mixture.
e) The antimicrobial additive shall have successfully demonstrated prevention of microbiological growth on concrete based on ISO 22196 Modified Method for Concrete to determine the antimicrobial resistance of concrete to Thiobacillus sp. The concrete shall be conditioned before testing to have a surface pH of no higher than 6.8.
f) The mix design used shall be reviewed by the manufacturer of the antimicrobial additive to check compatibility with all other admixtures, chemicals and minerals.
g) MORTAR AND SHOTCRETE: Field repairs to the precast concrete shall be made using a non-shrink repair mortar treated with ConBlock MIC at a dosage rate of 6 fl. oz/50 lbs. (148 mL/22.7 kg) of mortar. The admixture shall be added with the mix water. This repair mortar shall be used for filling joints, lift holes, damaged areas, benches, and similar areas of the precast structure. Use this procedure for spray applied cementitious liners.
h) Read and follow all label instructions for the use and handling of the antimicrobial product.

ConBlock MIC EPA Registration Number: 87907-1
Contact Concrete Sealants, Inc. for state pesticide registration documentation.
Standard Specification for ConBlock MIC
In Concrete and Cementitious Materials

Procedures
The following recommendations are based upon laboratory testing of ConBlock MIC using an adaptation of test method ISO 22196 for Determination of Antibacterial Resistance of Concrete to Thiobacillus Species.

- **Basic Protection**: One gallon of ConBlock MIC per cubic yard (5 L/M³) of concrete as a replacement for an equal amount of mixing water.

- **Additional Protection**: In addition to the Basic Protection, it is also recommended that ConBlock Topical, a proprietary blend of chemicals including ConBlock MIC, be applied topically to the concrete, and any other interior item.

ConBlock MIC must be accurately dosed. Compatibility of all mix additives is critical to the successful performance of ConBlock MIC.

**Disclaimer**: This publication is to assist users to understand the proper use of ConSeal’s products. Contact ConSeal’s technical staff for practices and procedures that meet your specific requirement. Concrete Sealants, Inc. does not warranty any improper use of its products.

Don’t Just Seal It, ConSeal It!

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