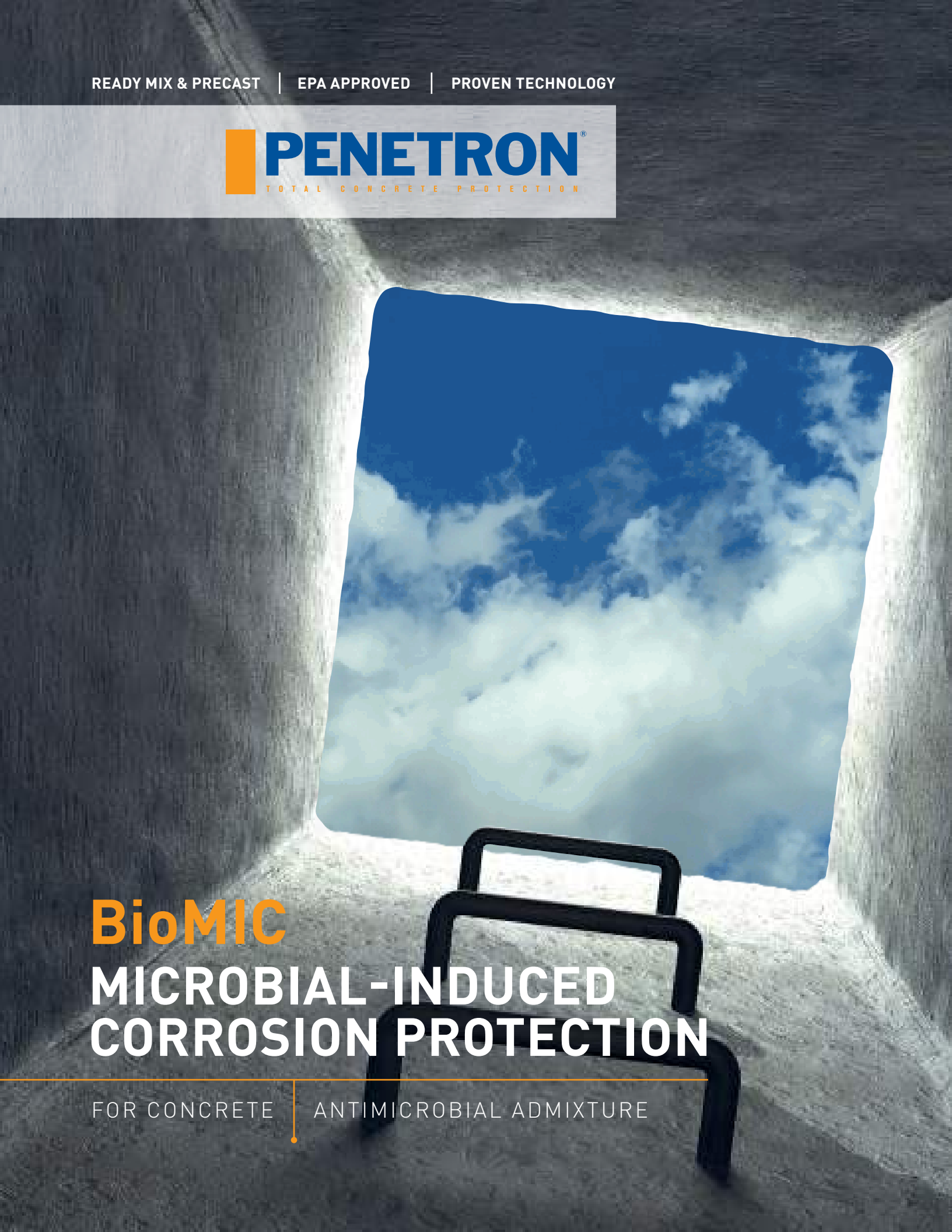
READY MIX & PRECAST | EPA APPROVED | PROVEN TECHNOLOGY

PENETRON®

TOTAL CONCRETE PROTECTION



BioMIC

MICROBIAL-INDUCED CORROSION PROTECTION

FOR CONCRETE | ANTIMICROBIAL ADMIXTURE

WHY BioMIC?

BioMIC is an antimicrobial concrete admixture that forms a molecular bond with the concrete, preventing microbial-induced corrosion (MIC) damage and inhibiting the growth of other product-damaging and odor-causing micro-organisms, such as bacteria, algae and fungi.

DURABLE CONCRETE REQUIRES LESS MAINTENANCE

What Causes Bio-Damage | MIC

Microbial-induced corrosion is caused by organisms that grow on concrete surfaces. These organisms produce biogenic acids that degrade concrete components, compromising the structural integrity of concrete structures in sewer and septic environments.

MIC accounts for billions of dollars worth of damage and maintenance globally in water & wastewater treatment plants, sewer systems, septic systems and other industries prone to damage by bacterial activity.





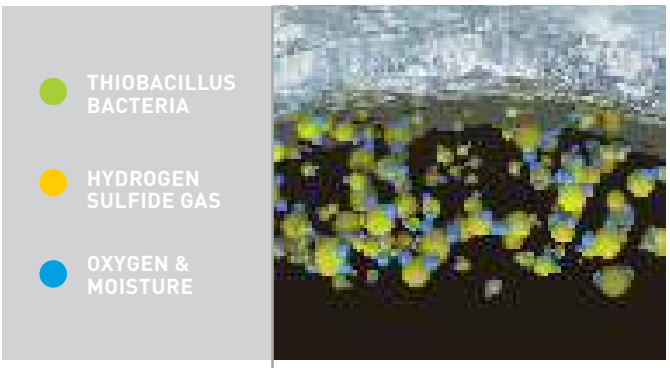
Prevent billions of dollars worth of bio-damage and maintenance annually.

WHY BioMIC WORKS

EPA
REGISTERED
TECHNOLOGY

Reliable Effectiveness

BioMIC concrete kills Thiobacillus bacteria on contact via elctro-physical destruction.



DESTROYS BACTERIA
BioMIC ruptures harmful bacteria cell walls on contact.

UNLIVABLE CONDITIONS
BioMIC renders the concrete uninhabitable for bacteria.

LONG-TERM PROTECTION
Electro-physical destruction remains effective indefinitely.

LEACH RESISTANT
BioMIC is an integral, leach resistant solution.

Visible Quality Control

BioMIC is also available
with a factory added blue pigment which colors the concrete blue, making BioMIC treated concrete easily identifiable.

This built-in quality control measure
makes it easy for the precast manufacturing facilities and on-site quality control inspectors to see which concrete units contain BioMIC from a distance.



Performance Benefits

Prevention

Prevents microbial-induced corrosion caused by acid-producing bacteria.

Integral

Becomes an integral part of the concrete matrix, remaining effective even when the surface is abraded or damaged.

Effective

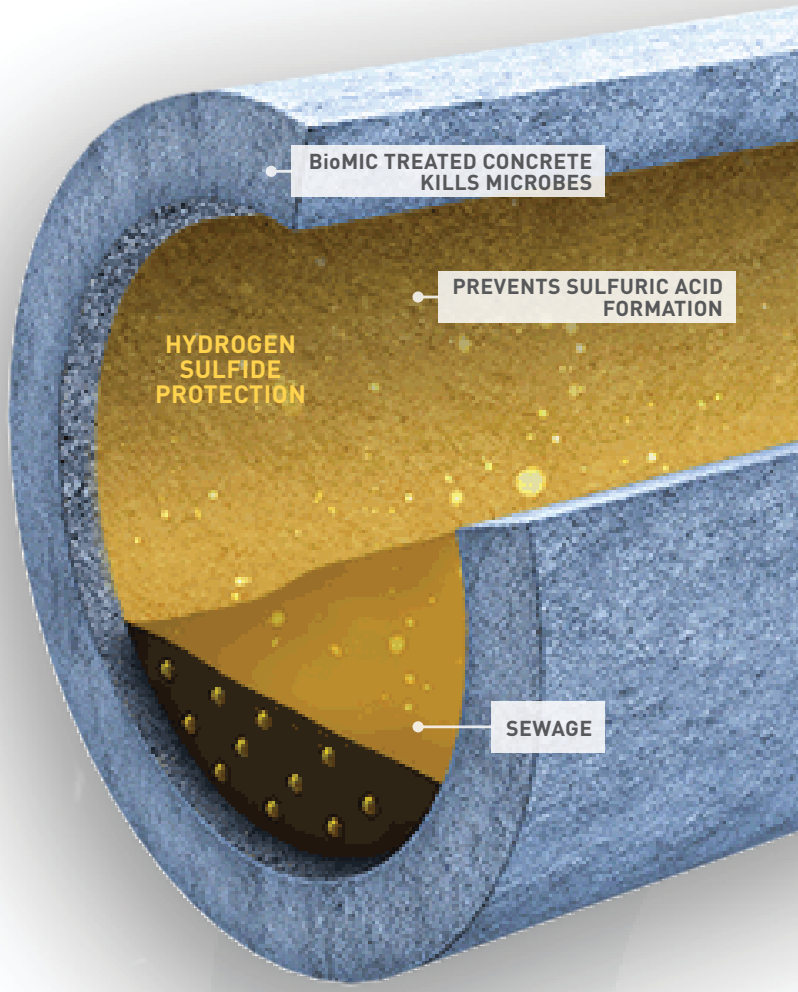
Electro-physical destruction destroys the bacteria cell walls. Repeated contact with bacteria will not lessen BioMIC's effectiveness.

Variety

Broad-spectrum protection, including gram-positive and gram- negative bacteria, fungi, mildew and algae.

Compatible

Fully compatible with PENETRON ADMIX to form a complete solution against microbial-induced corrosion.

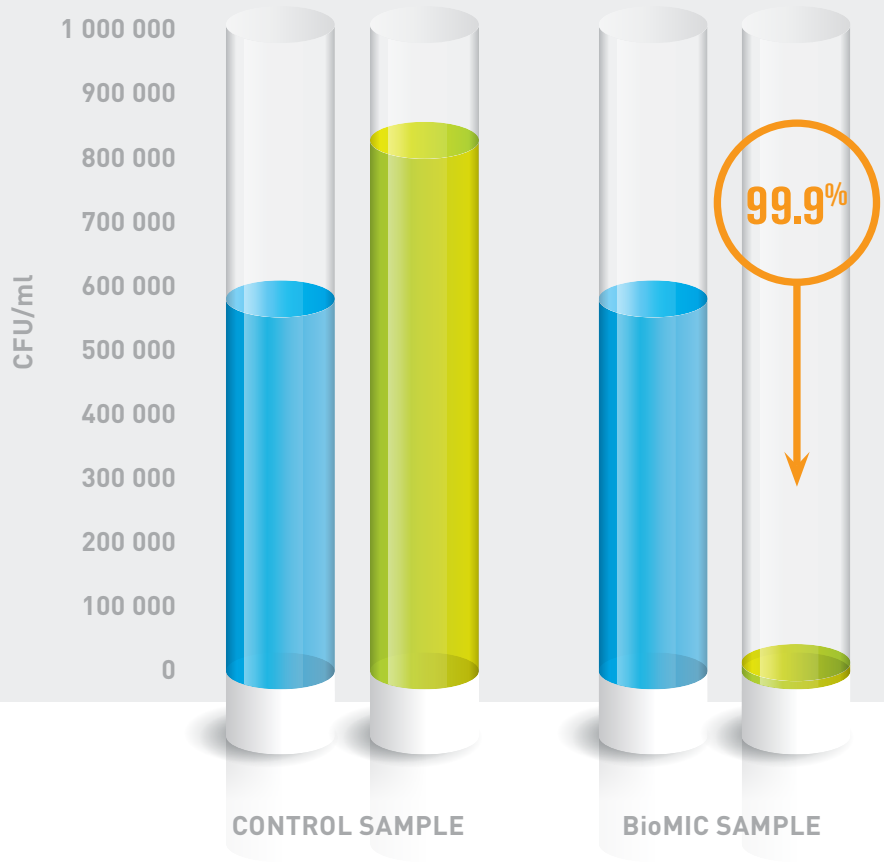


STOP MICROBIAL-INDUCED CORROSION BEFORE IT STARTS.

PROVEN RESULTS

Broad-Spectrum Protection

- GRAM-POSITIVE BACTERIA
- GRAM-NEGATIVE BACTERIA
- ALGAE
- FUNGI
- MILDEW



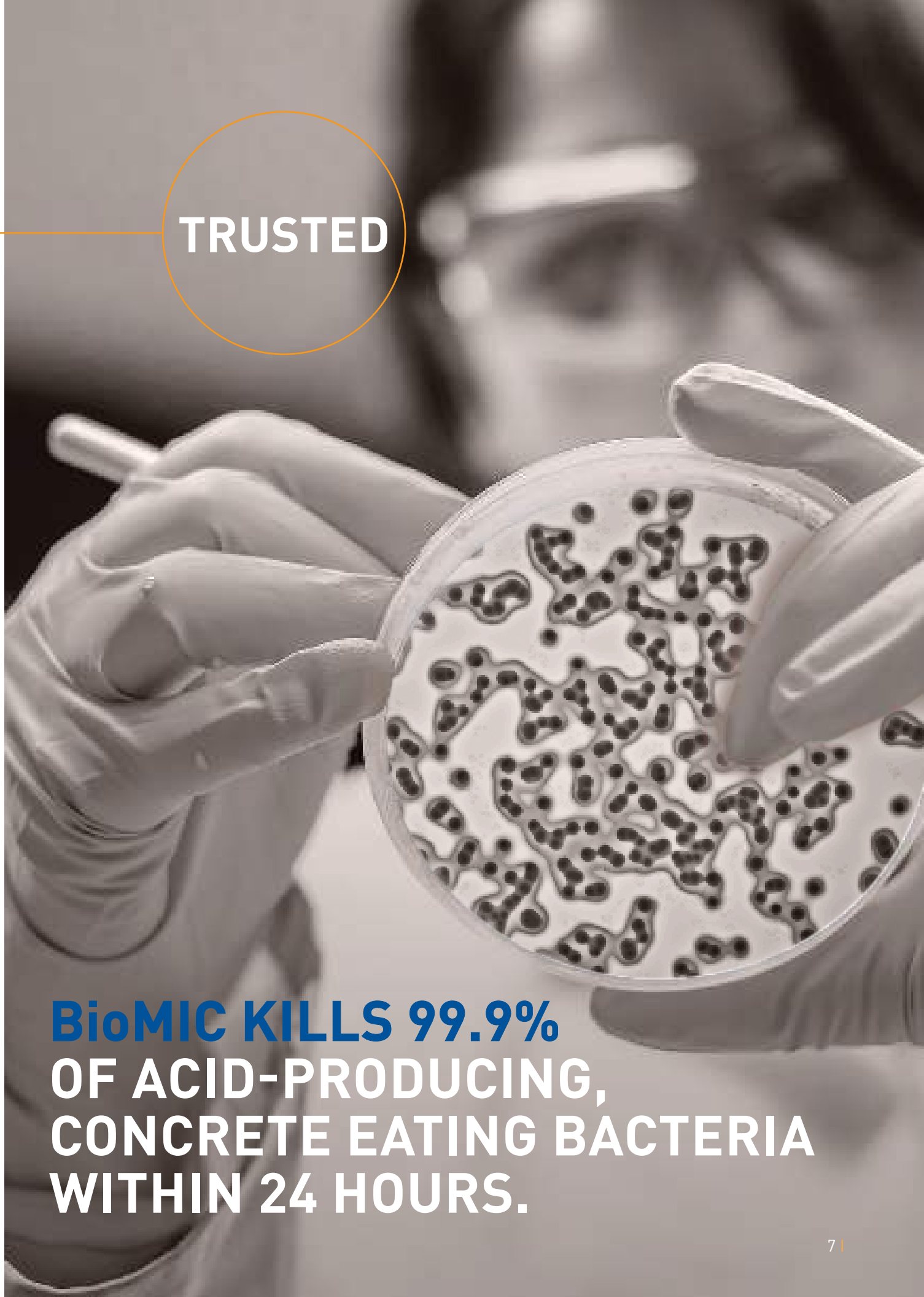
ISO 22196:

Bacterial Reduction

0HR 24HR

Modified ISO 22196 test, evaluating the antimicrobial efficacy of BioMIC treated concrete against Thiobacillus Thiooxidans bacteria.

CFU - COLONY FORMING UNITS.



BioMIC KILLS 99.9%
OF ACID-PRODUCING, CONCRETE EATING BACTERIA WITHIN 24 HOURS.

BioMIC APPLICATIONS

Ready Mix | Precast | Shotcrete | Repairs



WATER AND WASTEWATER TREATMENT FACILITIES

READY MIX CONCRETE

Water and wastewater treatment plants, pump stations or other cast-in-place concrete in sewer, septic and drainage applications.

PRECAST CONCRETE

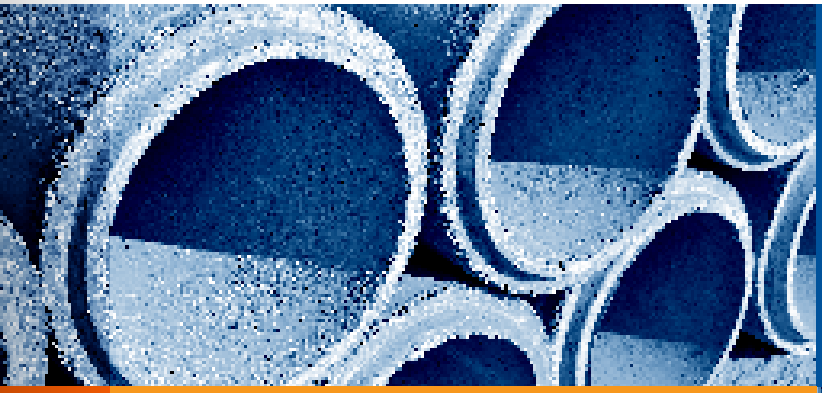
Manholes, pipes, tanks and other such precast structures used in sewer, septic and drainage applications.

SHOTCRETE

Shotcrete applications in sewer, septic and drainage applications.

CONCRETE & MORTAR REPAIRS

Where protection from microbial-induced corrosion is required.



PRECAST PIPES

MANHOLES





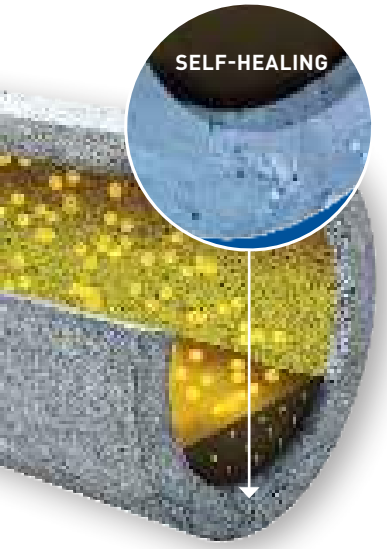
PUMP STATIONS

A MICRO SOLUTION FOR A MACRO PROBLEM.

PENETRON SUPPORT

"Best of Both Worlds"

BioMIC is designed to be used alone or in combination with PENETRON ADMIX, a permeability reducing admixture.



Penetron Admix Benefits

- Corrosion Resistance
- Chemical Resistance
- Sulfate Resistance
- Waterproof
- Self-Healing
- Permanent Protection

Custom Solutions

Every project has unique requirements based on the structure's function, environment and service life expectancy. The availability of separate products allows for targeted problem solving and economical solutions.

PENETRON ADMIX makes the full depth of the concrete impermeable and adds crack self-healing abilities. Combining BioMIC and PENETRON ADMIX provides concrete with protection against microbial-induced corrosion as well as protection against deterioration.

BioMIC is available

In a Variety of Packaging.

208 LITER
55 GALLON DRUM

1041 LITER
275 GALLON TOTE

Simple & Compatible

BioMIC concrete provides the much needed protection against high levels of microbial-induced corrosion (MIC). BioMIC is a liquid admixture that is easily added to concrete during batching. BioMIC is compatible with most standard concrete admixtures and cement replacement materials. Refer to the product data sheet for dosage, mixing and storage instructions.







Specialized Support

Penetron has years of experience in not just developing concrete based performance products but also years of expertise in helping our clients solve the day-to-day concrete production challenges. This virtuous cycle of dialogue and response is an important part of how we work. We provide our customers with technical and on-site support throughout the project life cycle, from design through to construction.









With locations in all key markets and production facilities in Europe, Asia, North America and South America, Penetron offers products and technical support to every country in the world through a comprehensive network of distributors.

PENETRON®
TOTAL CONCRETE PROTECTION

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