The concrete infrastructure of wastewater treatment systems is subject to complex physical and chemical corrosion processes. MasterSeal 7000 CR is specially designed to address these challenges.

The complex nature of wastewater treatment and the degradation processes makes challenging for the remaining infrastructure. The rate of chemical attack will vary according to the local conditions and the concrete material used. Part of the problem is the flow of wastewater and the pH level below 7 in some cases.

Biogenic sulfuric acid corrosion can lead to structural concrete damage.

Unprotected concrete is particularly vulnerable to so-called biogenic sulfuric acid corrosion (BSA) leading to structural, environmental and economic consequences. BSA corrosion is caused by bacteria from the genus Thiobacillus. Their metabolism involves the generation of sulfuric acid. The complex nature of wastewater treatment and its degradation processes makes challenging for the remaining infrastructure. The rate of chemical attack will vary according to the local conditions and the concrete material used. Part of the problem is the flow of wastewater and the pH level below 7 in some cases.

In addition to BSA corrosion in the headspace, chemical attack is also caused by sulfuric acid generated by the biological process which is subject to complex physical and chemical corrosion processes. MasterSeal 7000 CR contains state-of-the-art technology that addresses these challenges. It is the waterproofing and concrete protection system that meets the challenges of aggressive wastewater environments.

MasterSeal 7000 CR is the waterproofing and concrete protection system with a unique combination of performance and application characteristics that meet the challenges of aggressive wastewater environments. The performance-proven MasterSeal 7000 CR system significantly extends the life cycle of concrete structures. 

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### Product benefits at a glance:

- **Proven durability:** The MasterSeal 7000 CR system has been tested at the Fraunhofer Institute under conditions that simulate wastewater treatment in both urban and industrial plants. It has shown a high degree of durability and resistance to aggressive environments.
- **Robust performance:** The system is designed to address these challenges and has demonstrated its ability to effectively prevent water ingress and concrete damage.
- **Wide range of applications:** The MasterSeal 7000 CR system is suitable for a variety of applications, including industrial plants, urban areas, and other environments where aggressive conditions are prevalent.

### Master Builders Solutions from BASF for the Construction Industry

**MasterSeal 7000 CR**

**360° Protection for Extreme Conditions**

MasterSeal 7000 CR is designed to address the challenges of aggressive wastewater environments. It is a waterproofing and concrete protection system that offers significant benefits:

- **Sustainability:** The system is designed to minimize environmental impact and promote sustainability.
- **Versatility:** It can be used in a variety of applications, including industrial plants, urban areas, and other environments where aggressive conditions are prevalent.
- **Performance:** The system has demonstrated high performance in laboratory and real-world conditions, ensuring effective protection against aggressive environments.

### Dealing with Aggressive Environments

**Challenges in Wastewater Treatment: Dealing with Aggressive Environments**

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**360° Protection for Extreme Conditions**

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Xolutec—a New Dimension in Durability

Our new and unique technology for durable solutions was developed to solve the problems of challenging technical environments.

Xolutec is an innovative and smart way of combining complementary chemistries. After the material is mixed on site, a cross-linked interpenetrating network (IPN) is formed.

The technology is innovative in its concept and behavior in a wide variety of conditions, greatly extending the application window while reducing the potential for delays and failures.

Xolutec is very low in volatile organic components (VOC) and is quick and easy to apply with both spray and hand application equipment, depending on the requirements. It cures rapidly, even at low temperatures thus reducing application time and enabling fast returns to service with minimal downtime.

Long maintenance cycles and lower life cycle costs result in extremely higher cost benefit ratios.

Xolutec’s extreme versatility and capability to formulate a wide range of solutions specifically addresses trouble spots, in a more decisive manner in material technology for the construction industry.

Discover more about MasterSeal 7000 CR
Find more information about MasterSeal 7000 CR and its applications and watch the video on our campaign site.

MasterSeal 7000 CR
The Solution for Extreme Challenges

MasterSeal 7000 CR’s high resistance to abrasion and biogenic sulfuric acid corrosion are ideal to withstand the severe conditions that occur in pretreatment and aeration tanks, digesters, or sewers. Its dynamic and static crack-bridging abilities protect concrete from cracks thus prolonging the structure’s life cycle.

Application
The easy application of MasterSeal 7000 CR by spray or roller, as well as its compatibility with damp substrates, suit the conditions of wastewater facilities particularly well. Downtime – which is always critical when stopping a wastewater process – is also reduced because of its fast-curing properties that allow contact with water only 24 hours after application at 20 °C.

Primer
MasterSeal P 770

Thickness (approx.)
0.25 mm

Consumption (approx.)
0.3 kg/m²

Membrane
MasterSeal M 790

Thickness (approx.)
0.7 – 0.8 mm

Consumption (approx.)
0.8 – 1 kg/m²

With its unique combination of application and performance properties, MasterSeal 7000 CR is the right solution for waterproofing and protecting wastewater treatment concrete structures and sewers.

Performance

MasterSeal 7000 CR is suitable for:

- Horizontal, vertical and overhead application
- Specific chemical resistance including BSA*
- Crack-bridging ability
- Substrate moisture tolerance
- Fast and easy application

* “Specific chemical resistance” refers here to the chemical resistance to BSA and also organic acids.

Technical support and services
Our technical experts are available to discuss any questions you may have, 24 hours a day, seven days a week, in any language. Our worldwide service network includes over 100 service centers and branch offices, providing reliable and fast service. Our knowledgeable and skilled professionals are available to you from the moment you discover the potential of our materials to the longer term through the operation of your construction projects.

Plan your wastewater treatment project in an easy, fast and smart way
It takes only three steps to create a customized specification report of your project with our Online Planning Tool. Plan and organize your construction challenge, define your working area, and get a detailed project report – whether from your PC in the office or your tablet on site.

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