

# Sewers and Manholes

## Products and Applications



**Delivering tomorrow's technology today**

## Repair, waterproofing and protection

Product	Description and Use
<b>Fibre-Prime</b>	Brush applied, cement based, corrosion protective coating containing migrating corrosion inhibitor. It is used to protect exposed reinforcing steel or other steel parts (e.g. cast iron) in manholes.
<b>Fibre-Patch OV</b>	Hand applied, fast setting fibre reinforced, micro-silica enhanced structural waterproofing mortar for application on horizontal, vertical and overhead surfaces.
<b>Fibre-Patch WP</b>	Fast setting, hydraulic cement composition, used as hydraulic plug to stop an active water leaks prior to application of other material, shotcrete, special mortars or coatings. It used to waterproof inverts, or leaks in walls of manholes.
<b>Gem-Plast TC</b>	Repair mortar used in thin section, feather edge to 12 mm (up to ½ in) surface repair of reinforced concrete. Hand or machine applied.
<b>Corro-Chem 300</b>	One component, acid resistant mortar; hand or spray applied.
<b>Spray-Con WS ST</b>	Spray-applied, fibre reinforced, micro-silica enhanced wet process shotcrete for large volume structural rehabilitation and re-profiling.
<b>Cem-Kote CW Plus</b>	Crystalline waterproofing; slurry applied waterproofing to provide negative side waterproofing
<b>Cem-Kote Flex CR</b>	Flexible waterproofing, polymer modified cement coating, resistant to sulfuric acid, generated by micro-biological oxidation of hydrogen sulfide
<b>Cem-Kote Barrier Coat 100</b>	A high performance polymer modified cement coating use in waterproofing, as a bonding agent as well as in protection. It is also a highly effective vapour retarder coating, as an undercoat for epoxy resins systems, where the penetration of water or water vapour is possible from "behind" concrete layer. E.g. below grade concrete tank applications or secondary containment structures, requiring an epoxy coating for chemical resistance.
<b>Gem-Cote EP 100</b>	High performance, high chemical resistance epoxy coating – vertical and horizontal version. The use is mainly in protection of concrete in chemical environments. It is often used with Cem-Kote Barrier Coat 100 undercoat, when water vapour retardation is required, due to moisture coming from behind concrete layer.
<b>Nano-Shield OSP</b>	Cementitious waterproofing, impermeable and resistant to organic solvents, such as acetone, xylene, benzene, oils, hydraulic fluids, diesel and jet fuels and other organic liquids, emulsified in water. Used mainly in industrial waste water applications, including manholes.
<b>Gem-Warp CF/Gem-Strip CF and associated epoxies</b>	These are carbon fabric, or carbon fibre preformed strips, used in combination with epoxies in structural reinforcement of sewers.
<b>Bio-Gard 100, 200 Concentrates</b>	Highly specialized biocides, used as admixtures for concrete, mortar and shotcrete applications in environments with a high concentration of hydrogen sulfide; e.g. sewers, manholes.

All accessory products are manufactured and supplied by Gemite Products Inc.



1



2



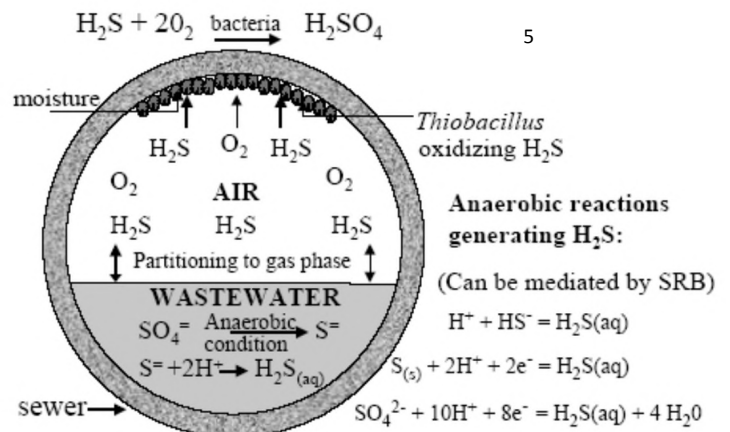
3



4



6





7



8



9



10



11



12



13



14



15

## Figures

1. **Spray-Con WS ST** – sewer repair, Chop, Ukraine
2. **Spray-Con WS ST** – sewer repair, Chop, Ukraine
3. **Cem-Kote Flex CR and ST** – sewer laboratory, Moscow Water Agency, Russia
4. Failing epoxy after one year – Sherbrook, Quebec, Canada
5. Simplified mechanism of concrete deterioration in concrete sewer
6. **Cem-Kote Flex ST** – exterior protection and waterproofing of concrete sewer line, Akron, Ohio
7. **Cem-Kote Flex Plus** – manhole chimney repairs, Rockland County, New Jersey, USA
8. **Gem-Wrap CF system** – structural repair of sewer, near Ias, Romania
9. **Spray-Con WS ST** – repair of manholes, Dallas, Texas, USA
10. **Spray-Con WS ST** – repair of manholes, Dallas, Texas, USA
11. **Cem-Kote Flex CR** – manhole protection and waterproofing, Brantford, Ontario, Canada
12. **Cem-Kote Flex CR** – precast concrete manhole protection, Toronto, Ontario, Canada
13. **Cem-Kote Flex ST** – precast concrete manhole protection, Guelph, Ontario, Canada
14. **Spray-Con WS ST** – centrifugal spraying tests, L.A. California, USA
15. Epoxy failure, sewer system, Moscow, Russia
16. **Cem-Kote Flex CR** applied to manholes, landfill facility, near Brantford, Ontario, Canada
17. **Cem-Kote Barrier Coat 100** and **Gem-Wrap system** – structural repair of sewer, near Ias, Romania
18. **Cem-Kote Barrier Coat 100** – negative side waterproofing, before structural repair by shotcrete, Cleveland, Ohio, USA

## SOLVING WATERPROOFING CHALLENGES WORLDWIDE

Gemite draws upon many decades of a practical experience to assist the Architect, Engineer and Contractor to find the most Efficient and Permanent Solution. From the Condition Analysis of existing structures, to continuous support during the Design and Specification process, we provide advice to assure that the best and cost efficient systems are selected.

### Worldwide Technology Leader

Our continuous Innovation, Superior Quality and Solid Reputation make Gemite the preferred industry choice for lasting and reliable solutions. The latest technology introduced by Gemite is a Nano group of products.



16



17



18

### Established and Field Proven Technology

Gemite material systems have been used in new construction and restoration projects ranging from small to huge. We have an international track record of successful installations for over 25 years around the globe, from the ravages of Sahara to the colds of Alaska.

### Global Availability and Support

Gemite materials are available internationally, ensuring consistent quality and service to customers everywhere. Gemite guarantees a Single Source of Environmentally Responsible Materials, applied by well-trained Professional Applicators, and supported by a Global Technical Network.

### LEED, Green and Safe

Gemite supports LEED Green concept and strives to maximize sustainability and environmental health by using materials with the lowest possible carbon footprint. Gemite's constant improvement of operating procedures and strict Quality Control according to its ISO 9001 Certification assures that we deliver materials with consistent quality and performance to our global Customers.

### Brochures for following markets are available on request:

- Water treatment
- Wastewater treatment
- Crystalline waterproofing
- Bridges
- Parking garages
- Wall and roof coatings
- Industrial concrete
- Dams and locks
- Tunnels
- Marine structures
- Cooling towers
- Airports
- Chemical protection of concrete
- Carbon Fibre Reinforcement
- Sewers and manholes



Canada: 1787 Drew Road  
Mississauga, Ontario  
L5S 1J5  
Phone: 905-672-2020  
Fax: 905-672-6780

USA: 160-3840 East Robinson Road  
Amherst, New York,  
14228  
Phone: 888-443-6483  
Fax: 888-443-6329

### Associated Companies World Wide

[www.gemite.com](http://www.gemite.com)

