

Bridges

Products and Applications



Bridge deck repair and protection

Product	Description and Use
Adi-Con CSF R	Silica fume (micro-silica) based admixture for concrete; provides low permeability, chloride penetration and water-resistant concrete overlay. It is typically used in thickness 5 cm (2 in). The admixture is formulated to provide no effect on slump of concrete, and it is added either at the site to ready mix truck, or in concrete mixing plant.
Gem-Crete HDO	A high-volume fibre reinforced mortar composition, used as a thin, waterproofing, high abrasion and impact resistant deck overlay, in thickness varying from 12 to 50 mm (1/2 – 2 in). It is typically supplied as a concentrate and mixed on site with specified amount of sand, cement and water using mortar mixer.
Gem-Crete HF ST (Plus)	A very thin deck, waterproofing overlay, varying from a minimum thickness of 6 to 100 mm (1/4 to 3/8 in), exhibiting a high abrasion and impact resistance. It is a two-component system, consisting of dry powders and a liquid additive. The "Plus" version is also fibre reinforced.
Gem-Gard SL 100	A hydrophobic silane, 100% active solids, penetrating sealer used in protection of concrete decks against penetration of salt and water. It also increases a freeze /thaw resistance of concrete.
Fibre-Patch ES ST (Plus)	Very fast strength developing repair mortars; traffic opening in one to several hours

Superstructure Repair

Product	Description and Use
Fibre-Prime	Brush applied, cement based, corrosion protective coating containing migrating corrosion inhibitor. It is used to protect exposed reinforcing steel.
Fibre-Patch OV	Hand applied, fast setting fibre reinforced, micro-silica enhanced structural waterproofing mortar for application on horizontal, vertical and overhead surfaces. Also used in grouting types of concrete repairs.
Gem-Plast TC	Repair mortar used in thin section, feather edge to 12 mm (up to ½ in) surface repair of reinforced concrete. Hand or machine applied.
Spray-Con WS ST	Spray-applied, fibre reinforced, micro-silica enhanced wet process shotcrete for large volume structural rehabilitation and reprofiling.

Superstructure Protection

Product	Description and Use
Tuff-Flex CA	A highly flexible, crack bridging, colored coating. Used mainly in restoration projects but also in new construction to provide low temperature crack bridging protection against water, chloride, carbon dioxide and oxygen intrusion.
Rain-Shield Stain OP WB	Water borne, acrylic color coating/sealer is used to provide a long-term protection of concrete against penetration of water and chlorides.
Gem-Gard SL ST	A hydrophobic silane, 100% active solids, penetrating sealer used in protection of concrete decks against penetration of salt and water. It also increases a freeze /thaw resistance of concrete.
Cem-Kote ST	Polymer modified cement damp-proofing coating, with superior durability and longevity
Cem-Kote Flex ST (Plus)	Highly flexible polymer modified cement coating, provides crack bridging and superior long-term water proofing and protection of concrete bridge structures. Typically sprayed applied.
Rain-Shield MC 100	Penetrating, acrylic, water borne, clear coating, based on novel Nanotechnology.
Gem-Gard MCI	Deep penetrating migrating corrosion inhibitor, provides corrosion protection of reinforcing steel.



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Figures

Front page photo: Gem-Gard SL 100, Tianjin, China

1. **Adi-Con CSF R concrete** – full deck replacement, Makow, Poland
2. **Tuff-Flex CA** – bridge structure, Dartmouth, Nova Scotia, Canada
3. **Spray-Con WS ST** – repairs, Warsaw, Poland
4. **Tuff-Flex CA** – bridges, Poland
5. **Gem-Gard SL 100** – New York State, USA
6. **Adi-Con CSF R (steel fiber) concrete** – bridge deck overlay, Ontario, Canada
7. **Gem-Crete HDO overlay**, HWY 55, Arkansas, USA
8. **Gem-Crete HDO** – bridge deck overlay, Fredericton, New Brunswick, Canada
9. **Gem-Crete HDO** – bridge deck overlay, Kansas City, Missouri
10. **Tuff-Flex CA**, airport highway, Kiev, Ukraine
11. **Rain-Shield MC 100** – clear sealer, Ontario, Canada
12. **Tuff-Flex CA**, near Warsaw, Poland
13. **Cem-Kote ST** – Bratislava, Slovakia
14. **Spray-Con WS ST**, New York, NY, USA

GEMITE INNOVATIVE GLOBAL CENTRE

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.



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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

