

## IMERYS



Fig. 1: HRSD James River WWTP damaged ordinary portland cement (OPC) concrete showing exposed aggregate, prepared with new rebar for initial SewperCoat® 2000 HS, 1991



Fig. 2: HRSD James River WWTP inspection in 2022, still performing after 31+ years without additional rehabilitation, SewperCoat® 2000 HS

Imerys is the world's leading supplier of mineral-based specialty solutions with \$4.17 billion in revenue and 12,400 employees in 40 countries as of 2024. The group offers high value-added and functional solutions to a wide range of industries and fast-growing markets such as solutions for the energy transition and sustainable construction, as well as natural solutions for consumer goods. Imerys draws on its understanding of applications, technological knowledge, and expertise in material science to deliver solutions which contribute essential properties to customers' products and their performance. As part of its commitment to responsible development, Imerys promotes environmentally friendly products and processes in addition to supporting its customers in their decarbonization efforts.

We have dedicated teams of Sales and Technical Service Managers that provide on-the-job technical and product support throughout North and South America. We work with owners, engineers, municipalities, and contractors to show how 100% calcium aluminate solutions work in the most aggressive environments, and how to apply them.

### WASTEWATER REHABILITATION – SUPERIOR H<sub>2</sub>S PROTECTION

SewperCoat® PG and SewperCoat® 2000 HS are 100% calcium aluminate shotcrete solutions for wastewater applications and have been on the market for over 34 years, beginning with an installation in Virginia for the Hampton Roads Sanitation District's (HRSD) James River WWTP in 1991. This initial rehabilitation project remains in service today and continues to be a testament to the powerful protection properties provided by our 100% calcium aluminate protective liners.

SewperCoat® products work against biogenic sulfuric acid attack via the release of alumina ions that create a bacteriostatic effect. This process drastically reduces bacterial activity, which in turn reduces sulfuric acid (waste product of the bacteria) from depositing on the surfaces of the concrete structure. This cycle creates an environment where acidic concentration is reduced by a factor of 100 to 1000 times lower when compared to typical sewer surfaces, which often exhibit a pH as low as 1. This characteristic is a natural phenomenon that occurs due to the chemistry and

# SUSTAINING CORPORATE MEMBER PROFILE



Fig. 3: Grit Chambers, Blue Plains Advanced WWTP, SewperCoat® 2000 HS, 2018

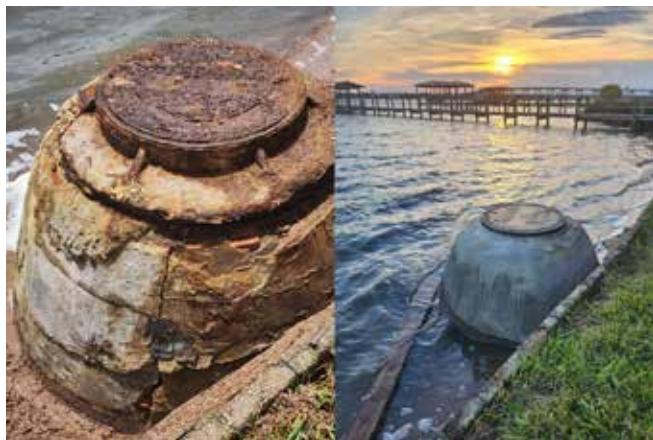


Fig. 4: Manhole rehabilitated inside and out with SewperCoat PG®, 2023



Fig. 5: Fondag® DG installed on all inner surfaces of fire academy burn buildings, still in service, 1999 and 2012

## CONTACT INFORMATION:

IMERYS

[imerys.com/product-ranges/sewpercoat](http://imerys.com/product-ranges/sewpercoat)

1316 Priority Lane, Chesapeake, VA 23324

[us.infra@imerys.com](mailto:us.infra@imerys.com)

mineralogy of our 100% calcium aluminate products.

## HEAVY INDUSTRIAL PROTECTION

FONDAG® is a 100% calcium aluminate industrial concrete product with low porosity and high density. The calcium aluminate aggregates provide abrasion resistance several times better than 5000 psi (35 MPa) portland cement concrete. Because the aggregate and the binder are mineralogically the same, there is an ideal chemical affinity resulting in a unique and stronger paste-aggregate bond. This bond gives Fondag® its exceptional thermal, mechanical, and chemical properties. Product features include:

- Thermal Cycling 2000 °F to -395 °F (1100 °C to -240 °C)
- Erosion/Heavy Abrasion Resistance
- Corrosion Resistance
- Mechanical Shock Resistance
- Constant Temperature Soak
- Cold Weather Applications – placeable at curing temperatures as low as 0 °F (-18 °C)
- High Early Strength – Early Return to Service, within 18-24 hours

## AEROSPACE

FONDAG® AEROSPACE is an extremely high-performance version of Fondag® that was developed specifically for the aggressive environments of rocket launch pads and other areas relevant to the aerospace industry. The outstanding performance of FONDAG® AEROSPACE is due to an enhanced combination of a hard, dense, synthetic calcium aluminate aggregate and a calcium aluminate binder. This significantly improves refractory properties and resistance to chemical corrosion as well as making tasks like modeling easier and more efficient. Since the product is resistant to both high temperatures (up to 2012°F [1100 °C]) and low temperatures (down to -292°F [-180 °C]), there is no need to use multiple products within the complex.



The product features of SewperCoat®, FONDAG®, and FONDAG® AEROSPACE allow IMERYS to provide solutions to an array of industries, including wastewater, heavy industry, food/beverage processing, steel mills, foundries, road repair, dam repair, and aerospace. The products can be combined to provide owners with solutions for their most aggressive and oftentimes complicated needs.