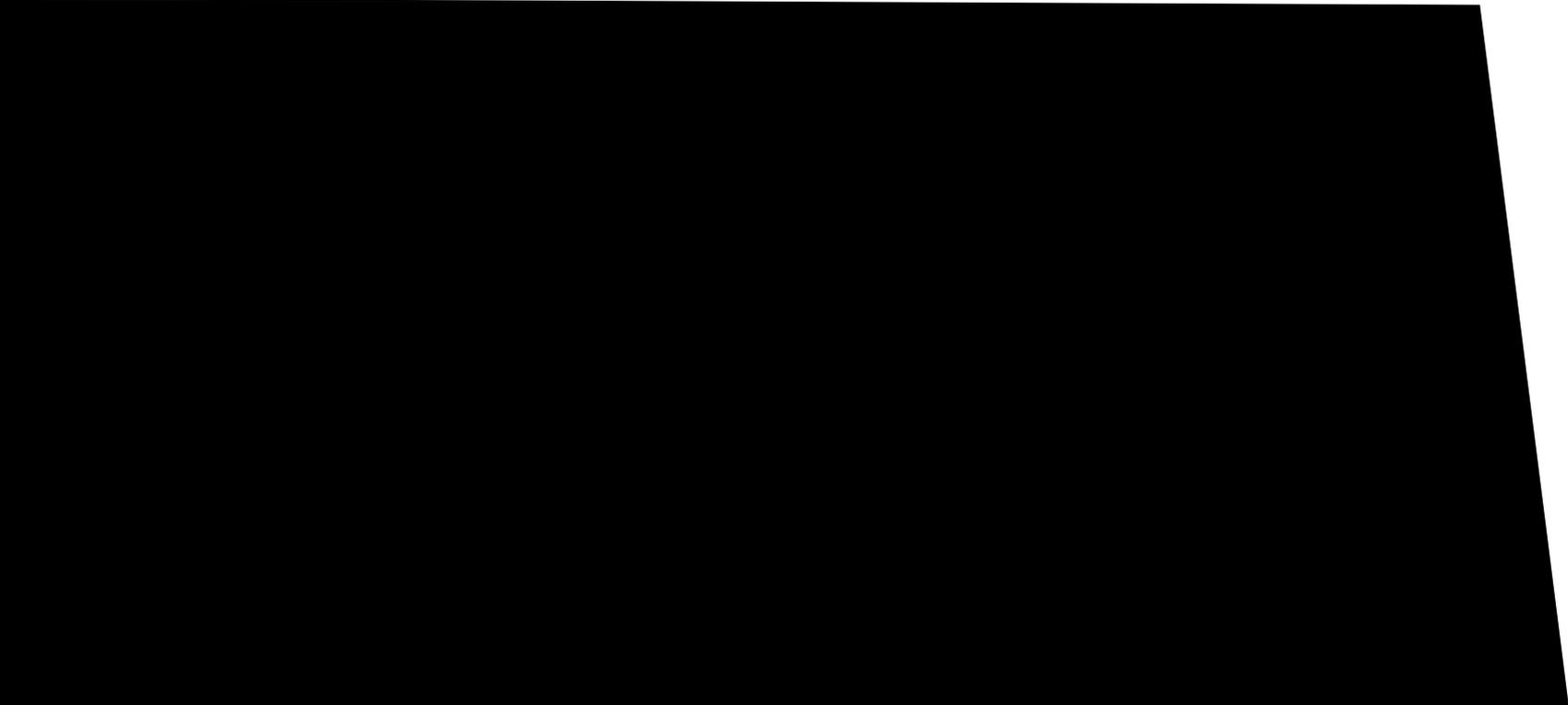


Petrochemical

Coatings, Linings, and Fireproofing

Superior Protection for Aggressive Environments





Proven Products from an Industry Leader

Carboline is the leader in protecting the petrochemical industry. Our comprehensive product line offers the right solutions on new construction and maintenance projects for these tough and demanding environments anywhere in the world. Our highly regarded products are fully tested and field proven; and backed by a team of professionals focused on the needs of the petrochemical industry.

Product Line

- > Outstanding corrosion protection products
- > Surface tolerant coatings
- > Moisture tolerant coatings
- > Low temperature and quick cure products
- > Ultra-weatherable finishes
- > Chemical resistant linings
- > Intumescent and cementitious fireproofing

Certifications / Listing

- > Det Norske Veritas
- > Underwriters Laboratories
- > National Sanitation Foundation
- > Lloyd's Registry
- > American Bureau of Shipping

Affiliations



Structural Steel, Piping, and Equipment (Carbon Steel)

Includes all plant steel, piping and equipment operating up to 250°F (121°C) and exposed to a variety of plant fall-out, fumes, occasional splash/spills of moderately aggressive chemicals and ultra-violet radiation from normal weathering.

Primers: Protective and Surface Tolerant

Carbozinc® Series

Carbozinc primers are zinc-rich primers with outstanding performance in petrochemical environments, showing excellent sub-film corrosion resistance and longevity to match the life of the structure.

Carbomastic® Series

Carbomastic coatings are surface tolerant epoxies that can be applied over marginally prepared steel substrates, will tolerate damp surfaces, and can cure at low temperatures for year round painting in some of the worst conditions.

Rustbond® Series

Rustbond coatings are surface tolerant, cross-linked penetrating primers/sealers with excellent wetting properties. They are highly flexible with excellent adhesion to existing coatings and will accept a variety of topcoats.

Barrier Coats: Chemical and Water Resistant

Carboguard® Series

Carboguard epoxies include a wide variety of excellent barrier coatings with chemical resistance. They are easy to apply and commonly used over zinc primers or direct to steel substrates.

Durable Finishes: Color and Gloss Retention

Carbothane® Series

Carbothane finishes are high performing urethanes that provide long term weather resistance, color and gloss retention, and chemical resistance to splash and spills.

Carboxane® Series

Carboxane siloxanes are ultra-weatherable and provide extreme long term color and gloss retention due to their outstanding resistance to ultra-violet radiation.



High Temperature Coatings for Piping and Process Equipment

The elevated temperatures of a petrochemical plant require high temperature coatings for corrosion protection. Insulative coatings keep workers safe, provide thermal efficiencies for processes and minimize corrosion under insulation for piping and equipment operating at higher temperatures.

Worker Protection and Insulation Needs - Operating Up to 350°F (177°C)

Carbotherm® Series

Insulative composite coatings formulated in a high temperature resistant epoxy or acrylic binder. They are ideally suited as a protective heat barrier to shield personnel from hot surfaces. They also inhibit heat transfer into or out of a structure. This makes them ideal to keep chemical storage tanks cooler. These products also prevent cold surfaces from sweating.

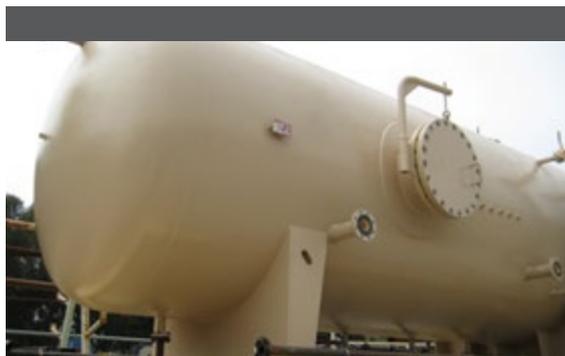
Uninsulated Steel - Operating From 300°F to 1000°F (148°C to 538°C)

Carbozinc Series

Carbozinc primers have outstanding sub-film corrosion resistance and high temperature stability. They are particularly useful to protect steel substrates during down times and thermal cycling events that would otherwise be very detrimental to unprotected steel.

Thermaline® Series

Thermaline high heat polymer coatings are used to protect and to provide color for equipment operating at elevated temperatures. They are typically used over Carbozinc primers for long term performance.



Coatings Under Insulation

High temperature piping and equipment are often insulated for process requirements or energy conservation. Moisture and chemicals can eventually find their way inside the insulation that will accelerate the corrosion process. Coating systems designed to handle the aggressive chemicals and thermal, wet/dry cycling are critical for long term performance.

Insulated Steel - Operating Up to 300°F (148°C)

Carboguard Series

Carboguard epoxies are outstanding barrier coatings to handle moisture and moderately aggressive chemicals often found under wet insulation.

Carbomastic Series

Aluminum-filled Carbomastic coatings are surface tolerant to power tool cleaned steel and provide excellent protection to steel under insulation.

Insulated Steel - Operating Up to 1200°F (649°C)

Thermaline Series

Modified epoxy phenolic, glass-flake filled epoxy novolac, and high performance inorganic polymer. Thermaline coatings are the ultimate in chemical resistance and wet/dry thermal cycling seen under insulation.

Linings for Storage Tanks and Vessels

The demands placed on a lining system are considered to be the most aggressive service for a coating. Many times a lining system is asked to protect a million dollar investment from failure and/or remediation. As such, there should be no shortcuts or compromise in their selection, application, or use. Carboline linings have been fully tested and field proven to ensure the user the best possible asset and cargo protection in the industry.

Water & Potable Water Storage

Carboguard® Series

Thin-film epoxy linings designed for mildly corrosive service in potable water, process water, and mild chemicals normally operating near ambient conditions.

Fuel Storage

Phenoline® Series

Highly functional epoxy and modified epoxy linings that are ideal for a variety of petroleum storage products including crude oil, demineralized water, crude/water mixtures, gasohol, ethanol, fuel oil, jet fuel, biodiesel, and gasoline.

Harsh Chemical Storage

Plasite® Series

A specialized series of ultra high performance linings that have been developed for extreme chemical exposure, high pressure applications, and higher temperature service. This series includes single-coat, high build, solvent-free products with fast cure properties for rapid return to service.



Secondary Containment

Secondary containment of chemicals, wastewater or fuels is required by regulations and can be challenging to an owner since the most common substrate is concrete. Specially designed products and knowledge gained over decades in how to treat design details helps ensure complete and long term protection of the concrete and chemical retention in the event of a spill.

Semstone® Series

A wide range of epoxy and vinyl-ester based technology that includes aggregate-filled and reinforced systems designed to handle aggressive chemical exposures and high physical demands. Our long history of knowing how to handle installation details - the right way; helps ensure proper sealing and protection around cracks, control joints, penetrations, junctions, tank rings, and the like.

Reactamine® Series

Elastomeric polyureas and hybrids are ideal for concrete protection against a variety of petroleum based products due to their crack bridging capabilities and elongation properties.

Fire Protection of Steel

Epoxy intumescent and cementitious fireproofing products provide both hydrocarbon and jet fire ratings for the petrochemical industry. They cure to a tough, durable, protective finish with high flexural and compressive strengths that can handle harsh petrochemical exposures.

Cementitious

Pyrocrete® Series

High density, exterior grade, heavy duty, cementitious fireproofing materials ideal for use in industrial and petrochemical environments exposed to hydrocarbon and jet fires and/or cryogenic spills.

Cable Coatings

Intumastic® 285

A FM (Factory Mutual) approved and IEC (International Electrochemical Commission) certified, water based, fire resistant coating that was specifically developed for the fire protection of grouped or bundled electrical cables.

Intumescent

Thermo-Lag® Series

The most efficient epoxy based fireproofing product line on the market, with industry leading hydrocarbon ratings.

Pyroclad® X1

Ultra durable epoxy based fireproofing with unsurpassed weathering characteristics, low thickness requirements, and excellent hydrocarbon and jet fire protection.



GLOBAL COATINGS LEADERS™

RIGHT PEOPLE · RIGHT PRODUCTS · RIGHT LOCATIONS



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