

# Power

## Coatings, Linings, and Fireproofing

**Superior Protection for Power Plants**



## Markets We Serve



Fireproofing



Bridges & Highway



Offshore Oil & Gas



Petrochemical



Water & Wastewater



Transportation



Power



Metals & Mining



Renewable Energy



OEM



Commercial & Architecture



Pipelines & Terminals



Pulp & Paper



Commercial Marine



Food & Beverage

## Problems We Solve

- › Protecting steel and concrete from corrosion, abrasion, and weathering
- › Over-coating existing coatings, marginally prepared surfaces, or wet/damp substrates
- › Aggressive chemicals, corrosive high temperature cargoes found in storage tanks
- › Protecting concrete from chemical splash and spillage for secondary containment areas
- › Quick to service application with long service life and colour retention
- › Providing passive fire protection needed in industrial and commercial sites
- › Below ground/buried, corrosion, impact, and abrasion resistance

## Industry Affiliations



# Proven Products from an Industry Leader

Carboline is the leader in protecting the power 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 power 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
- › Secondary containment

## 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, normal weathering and ultra-violet radiation.

### Primers: Protective and Surface Tolerant

#### Carbozinc® Series

Carbozinc primers are zinc-rich primers with outstanding performance in power plant 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: Colour and Gloss Retention

#### Carbothane® Series

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

#### Carboxane® Series

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



## Piping and Process Equipment

Includes insulated plant piping and equipment operating from 300°F to 1000°F (148°C to 538°C) with worker protection/insulation needs up to 350°F (177°C).

### 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.



### 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 colour for equipment operating at elevated temperatures. They are typically used over Carbozinc primers for long term performance.

## Coatings Under Insulation Protection for Extreme Service

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 450°F (232°C)

#### Thermaline® Series

Modified epoxy phenolic and glass-flake filled epoxy novolac coatings are the ultimate in chemical resistance and wet/dry thermal cycling protection 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 owner the best possible asset and cargo protection in the industry.

## Water Storage or Exposure

### Carboguard® Series

Epoxy linings designed for mildly corrosive service in 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 storage products including fuel oil and demineralized water.

## 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.

## Chemicals, Fuels & Wastewater

### Semstone® Series

A wide range of epoxy and vinyl-ester based technologies 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 wastewater and fuel based products due to their crack bridging capabilities and elongation properties.

## Fire Protection for Steel

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

### Cementitious

#### Pyrocrete® Series

High density, exterior grade, heavy duty, cementitious fireproofing materials ideal for use in industrial environments exposed to fire 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.





# CANADIAN SALES & DISTRIBUTION LOCATIONS



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