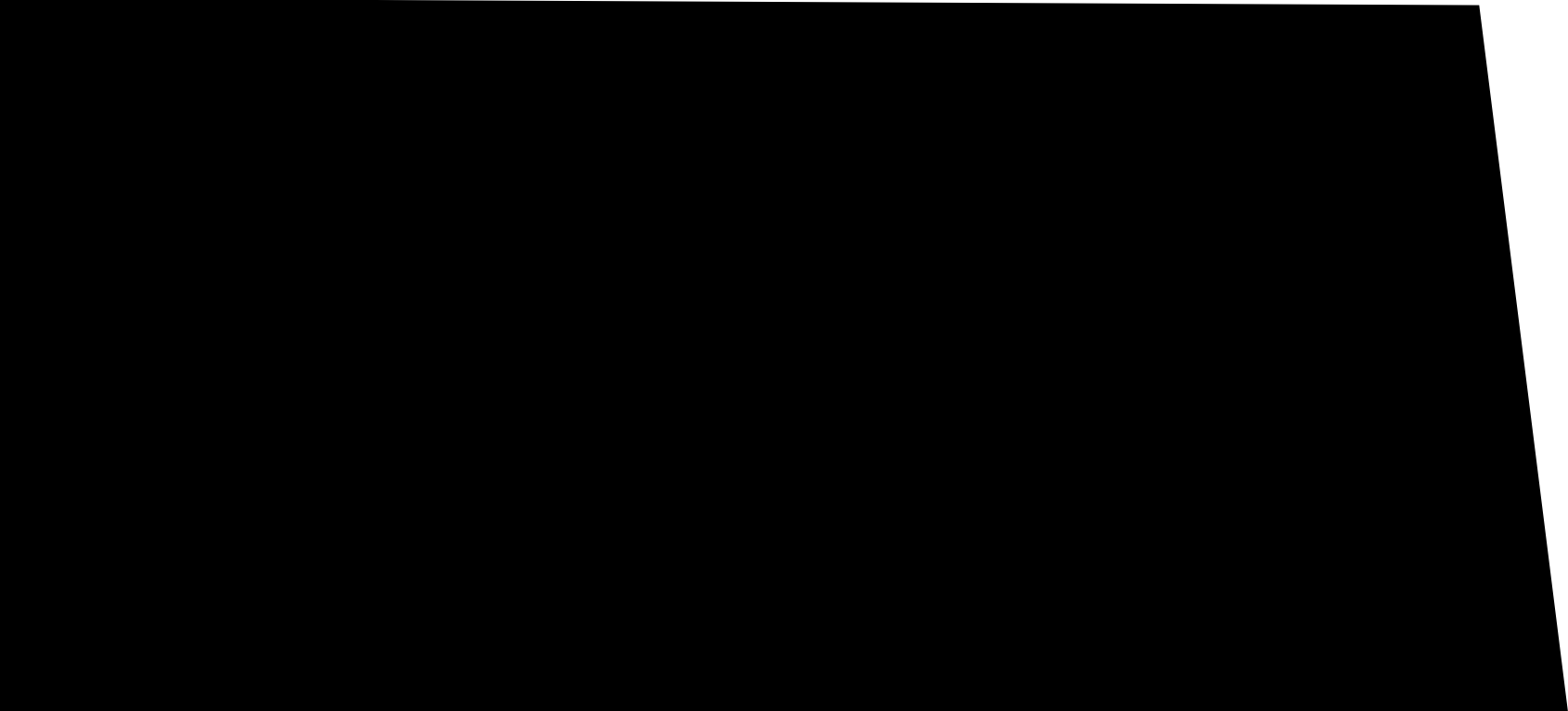


Oil & Gas Upstream

Coatings, Linings, and Fireproofing

Superior Protection for Exploration and Production





Proven Products from an Industry Leader

Carboline is the leader in the protection of offshore structures. 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 oil and gas upstream industry.

Product Line

- › NORSOK approved systems
- › Outstanding corrosion protection products
- › Surface tolerant coatings
- › Moisture tolerant coatings
- › Low temperature and quick cure products
- › Ultra-weatherable finishes
- › Chemical resistant linings
- › Non-slip deck systems
- › Fireproofing products for life safety

Certifications/Listing

- › Det Norske Veritas
- › NORSOK
- › Underwriters Laboratories
- › Factory Mutual
- › National Sanitation Foundation
- › Lloyds Register of Shipping
- › American Bureau of Shipping



Topsides

Superstructure, Legs, Bracing, Pipe Racks, Handrails, Ladders, Cranes, Derricks, Piping and Process Equipment Exteriors

Offshore atmospheric exposures are particularly aggressive due to the severity of constant ultra-violet radiation and a corrosive salt-laden environment. Coatings must offer reliable outstanding barrier protection from moisture permeation; resist sub-film corrosion should breaks in the film occur; and weather (color/gloss retention) for long periods of time. Long term performance is required due to the high cost of offshore maintenance.

Carboxane® Finishes

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

Carbomastic® Coatings

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.

Carbozinc® Primers

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

Carboguard® Epoxies

Carboguard epoxies include a wide variety of excellent barrier coatings with chemical resistance and ease of use characteristics for use over zinc primers or direct to steel substrates.

Carbothane® Acrylic Polyurethanes

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



Decks

Helidecks, Main Deck, Cellar Decks, Lay Down Areas, Walkways

Non-slip coating systems incorporating high-profile, non-skid aggregate in tough epoxy matrix to provide safer working conditions in critical areas.

Carboguard Non-Slip Epoxies

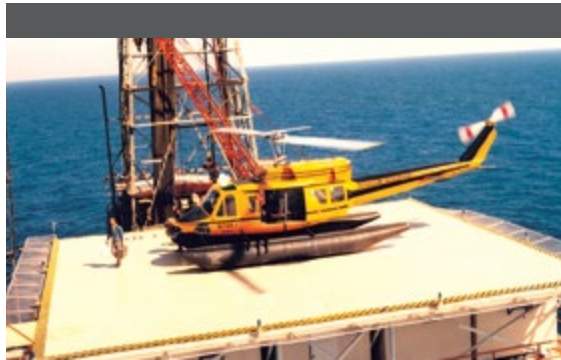
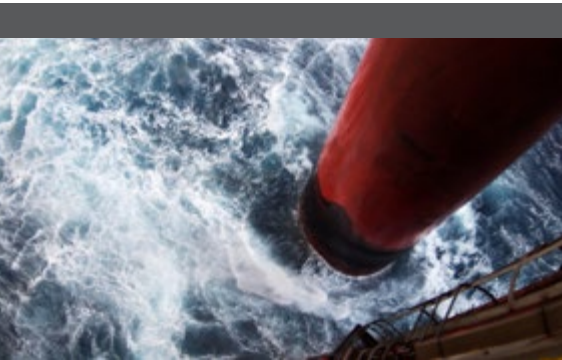
Epoxy coatings that incorporate high profile, non-slip aggregate in a tough epoxy binder system provides safe working conditions and excellent barrier protection and chemical resistance to oils, salt water, drilling mud and other chemicals.

Flake-reinforced system for added physical durability and barrier protection.

Carboguard Aggregate Filled, Non-Slip Epoxies

Ultra high-build, aggregate-filled epoxy coatings that handle severe abuse exposures. These epoxies can take high impact and abrasion conditions.

High profile, non-slip aggregate can be incorporated for safety concerns.



Tidal / Splash Zone and Subsea Pipeline, Risers, Boat Landings, Jacket Legs, Hulls

Coatings designed for highly abusive conditions (impact and abrasion) with aerated salt water exposure and usually must be compatible with cathodic protection.

Carboguard (GF) Glass-Flake Epoxies

Glass flake-filled epoxies are ideal for these environments providing added internal film strength for abrasion and impact resistance as well as additional barrier protection against the salt water exposures.

Excellent for splash zone areas such as jack-up legs and semi-submersible hulls; or boat landing areas.

Carboguard Aggregate-Filled Epoxies

Aggregate-filled epoxies provide exceptional impact and abrasion resistance in the tidal zone areas where workboats and wave action require ultra-durable protection to structural components.

Salt Water, Drilling Mud, Sewage, Oil, Ballast, Fuel, and Potable Water

There are a variety of tank lining needs on board vessels specific to the cargo to be stored. Whether the need is for abrasion resistance, chemical resistance, corrosion resistance or product purity, Carboline linings offer long-term performance in what is considered “critical” service in tank lining applications.

Carboguard®

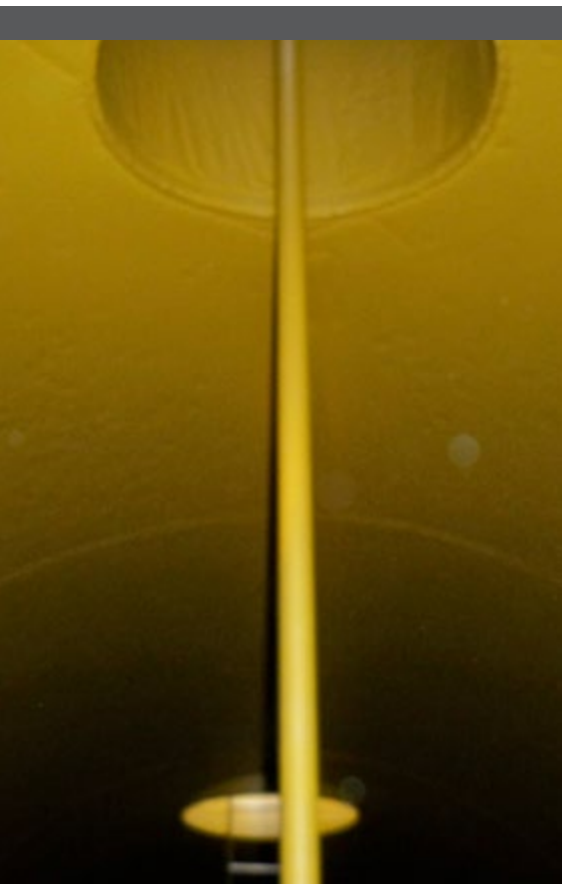
Carboguard epoxies include a wide variety of excellent barrier coatings with chemical resistance and ease of use characteristics for a wide variety of water and wastewater exposures.

Phenoline®

Highly functional epoxy and modified epoxy linings for a full range of petroleum storage products including fuels, oils, crude oil and ballast tanks.

Plasite®

Ultra High Performance linings that have been developed for unsurpassed performance in extreme chemical service.



Structural Steel, Bulkheads, Underdecks, Crew Quarters, Supports for Pipes, Tanks and Vessels

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

Pyroclad®

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

Thermo-Lag®

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

Ratings

- › ISO 22899 Jet Fire Ratings
- › ISO 834 / BS-476 Hydrocarbon Pool Fire Ratings
- › UL 1709 Hydrocarbon Ratings
- › H-0, H-60, H120, A-30, A-60 Bulkhead and Underdeck Ratings

Certifications

- › LRS (Lloyds Register of Shipping)
- › DNV (Det Norske Veritas)
- › ABS (American Bureau of Shipping)
- › UL (Underwriters Laboratories)
- › FM Global (Factory Mutual)



GLOBAL COATINGS LEADERS™

RIGHT PEOPLE · RIGHT PRODUCTS · RIGHT LOCATIONS



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