SPECIALTY POLYMER COATINGS
A DIVISION OF CARBOLINE

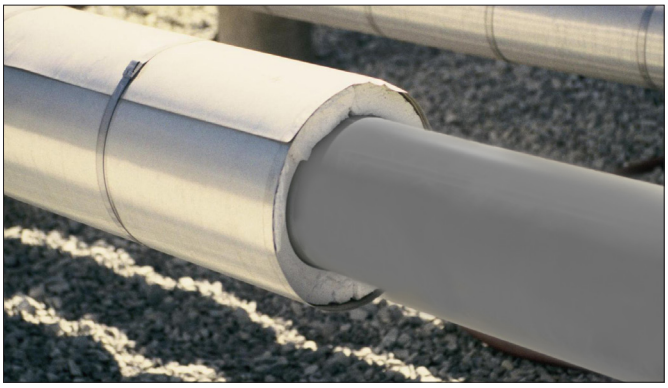
carboline®
Coatings - Linings - Fireproofing

Coatings Under Insulation

Carboline offers superior coating systems to prevent corrosion under insulation (CUI). These uniquely formulated, chemically resistant products provide long term protection for both carbon and austenitic stainless steels against the wet/dry, thermal cycling exposures commonly found on substrates under insulation.

CUI COATING SYSTEM REQUIREMENTS

- Thermal shock/cycling resistance
- High temperature resistance
- Very good flexibility
- Excellent overall chemical resistance
- Very good abrasion resistance
- Easily applied by spray
- Acceptable for use over stainless steel
- Compliant to NACE SP0198 for use under insulation



Thermaline Heat Shield

An extreme-performance coating ideal for all piping, vessels, and equipment operating from cryogenic conditions up to 1,200°F (649°C). It is particularly well suited to prevent corrosion under insulated equipment/piping for both carbon steel substrates and stainless steels.

Thermaline 450

An extreme chemical resistant, glass flake-filled, epoxy novolac with outstanding thermal cycling resistance up to 450°F (232°C). This coating can be used in cryogenic service.

Carbomastic® 15

A surface tolerant, aluminum-filled, epoxy mastic suitable over power tool cleaned surfaces and resistant to 300°F (149°C).

Carboguard® 690

A low temperature cure epoxy phenalkamine with excellent barrier resistance up to 300°F (149°C).

Thermaline 440

A high-performance, heat-resistant epoxy phenolic that provides color for uninsulated piping and equipment. It can be used on hot steel substrates under insulation operating continuously up to 400°F (204°C) and can be used in cryogenic service.

Thermaline 450 EP

An epoxy-phenolic epoxy with very good chemical resistance and barrier properties, resistant up to 400°F (204°C). This coating can be used in cryogenic service.

SP-8888®

A two-component epoxy novolac that cures to a highly cross-linked coating with excellent resistance to high-temperature cathodic disbonding up to 302°F (150°C).

QUALITY PRODUCT BACKED BY QUALITY SERVICE

- Carboline has been solving tough corrosion and fireproofing problems since 1947
- Industrial service centers and sales offices located around the world
- Over 20 worldwide manufacturing locations with a global network of sales and technical support
- Industry leading field service and technical engineering support team
- Certified to ISO 9001

COATINGS SELECTION

There are a variety of systems to choose from to protect steel substrates from the effects of CUI. The selection criteria should be based on expected temperature exposures, type of insulation and any anticipated leachables from that insulation (and the corresponding chemical resistance needed), and the proposed method of application and ambient conditions during application.

PRODUCT	TYPE	ADDED REINFORCEMENT	LOW TEMP CURE	TEMP LIMIT	CHEMICAL RESISTANCE	RECOMMENDED COATS
Carbomastic 15	Epoxy-Amine	Aluminum	50°F (10°C)	300°F (149°C)	Good	2
Carboguard 690	Epoxy-Phenalkamine	N/A	20°F (-7°C)	300°F (149°C)	Good	2
SP-8888	Epoxy-Novolac	N/A	50°F (10°C)	302°F (150°C)	Good	1
Thermaline Heat Shield	Inert Multi-Polymeric Matrix	Aluminum	50°F (10°C)	1,200°F (650°C)	Good	2
Thermaline 440	Epoxy-Phenolic	N/A	41°F (5°C)	400°F (204°C)	Good	2
Thermaline 450	Epoxy-Novolac	Glass Flake	50°F (10°C)	450°F (232°C)	Outstanding	1
Thermaline 450 EP	Epoxy-Phenolic	N/A	50°F (10°C)	400°F (204°C)	Excellent	2

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