

# 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 steels
- › Compliant to NACE SP0198 for use under insulation

### **CARBOMASTIC® 15**

Surface tolerant, aluminum-filled, epoxy mastic suitable over power tool cleaned surfaces and resistant to 300°F

### **CARBOGUARD® 690**

Low temperature cure epoxy phenalkamine with excellent barrier resistance up to 300°F

### **THERMALINE® 450 EP**

An epoxy-phenolic epoxy with very good chemical resistance and barrier properties, resistant to 400°F

### **THERMALINE® 450**

An extreme chemical resistant, glass flake filled, epoxy novolac with outstanding thermal cycling resistance up to 450°F

### **THERMALINE® HEAT SHIELD**

An aluminum and micaceous iron oxide reinforced inorganic polymer to handle extreme thermal cycling resistance from -321°F up to 1200°F

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## Quality Product Backed by Quality Service

- › Carboline Company 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	300°F	Good	2
Carboguard 690	Epoxy-phenalkamine	—	20°F	300°F	Good	2
Thermaline 450 EP	Epoxy-phenolic	—	50°F	400°F	Excellent	2
Thermaline 450	Epoxy-novolac	Glass flake	50°F	450°F	Outstanding	1
Thermaline® Heat Shield	Inorganic polymer	Aluminum and micaceous iron oxide	50°F	1200°F	Excellent	2



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