

PRODUCT PROFILE

DESCRIPTION

COMBAT-450 offers excellent protection against dew point corrosion and other environmental enemies. COMBAT 450 is a rugged coating that withstands temperatures up to 450° F. COMBAT 450 is available in spray grade in both light and dark gray making it the perfect industrial coating for internal or external equipment or structures that may be suffering from chemical discoloration. Combat 450 performs well on stack interiors or exteriors, bag houses, ducts, valves and anything subject to temperature and corrosion. COMBAT 450 is self-priming and provides exceptional wear protection to both metal and concrete surfaces.

COMBAT 450 is non-hazardous, non-corrosive and emits no foul vapor during installation. COMBAT 450 exhibits excellent heat distortion properties and has the ability to flex with normal vibration and expansion.

- 100% Solids, No VOCs
- Excellent chemical resistance
- Maximum heat resistance

CHEMICAL RESISTANCE

Ammonium Hydroxide
 Aromatic & Aliphatic Solvents
 Black Liquor
 Butyl Acetate
 Butyl Carbitol
 Chlorinated Solvents
 (except Methylene Chloride)
 Chlorides
 Chromic Acid up to 30%

Hydrochloric Acid up to 100%
 (38% Hydrogen Chloride content)
 Hydrofluoric Acid up to 35%
 Hydrogen Sulfide
 MEK
 Nitric Acid up to 30%
 (Many) Organic Acids
 Phosphates
 Phosphoric Acid up to 100%

Potassium Hydroxide
 Salts
 Sodium Hydroxide
 Sodium Hypochloride up to 50%
 Sulfides
 Sulfuric Acid up to 98%
 White Liquor

PREPARATION SP5 FINISH

Metal surfaces must be prepared by thoroughly cleaning and roughening to gain maximum adhesion. Sweat oily chemical soaked items and then grit blast a very rough 2-4 mil profile into the surface. (NACE 1 / SSPC-SP-5)



PHYSICAL PROPERTIES

Color	Light Gray, Dark Gray
Container Size	1 or 2 gallons
Coverage per gallon (Theoretical)	160 sq. ft. @ 10 mils thickness
Coefficient of Expansion (10 ⁶ /per °F)	1.8
Flash Point	> 250°F (121°C)
Pull-Off Adhesion Test ASTM D 4541	Minimum adhesion is 2800 psi
Recommended Thickness	2-3 coats @ 10 mils each; for high temps/severe chemical 3-4 coats @ 10 mils each is recommended
Specific Gravity	Resin: 1.51 Hardener: 0.95
Volatile Organic Compounds (VOC)	0 grams/liter
Weight per gallon	11.39 lbs

POT LIFE

40°F (4°C)	5 hours 40 minutes
75°F (24°C)	1 hour
92°F (33°C)	25 minutes

Note: Do not keep the blended coating in the original container unless immediate use is planned. Otherwise, exotherm—heat created during the curing process—will considerably shorten the pot life. Pour the coating into a rolling tray or large aluminum-basting pan. Try to keep the depth of the coating in the tray below 3/8".

SERVICE TEMPERATURE

<u>ENVIRONMENT</u>	<u>MAX TEMPERATURES</u>
Dry Service	450°F (232°C)
Spill/Splash	360°F (182°C)
Immersion Service*	300°F (149°C)

**Immersion with solvents, mineral acids, or alkalines, or if over 150°F contact factory*

PUMP SPECIFICATIONS

Pump Ratio	56:1 or greater
Minimum Output	5600 psi
Product Hose: Min. - Optimum I.D.	0.375 - 0.5 inch
Max. Length	50 feet

MULTIPLE COATS

Second and subsequent coats must be applied before the previous coat has completely cross-linked. Apply additional coats when the previous coat will still string out (pigtail) and hold its shape when touched. If any slight tack remains, allow the product to cure, then brush blast before applying the next coat.

The same requirement applies when overlapping the seams of adjacent coating sections to create a continuous protective film. If the coating surface to be overlapped at the seam cannot be brush blasted, use a non-impact means such as power brushing or sanding to create a mechanical profile.

CURE TIME (AT 75°F)

Re-coat Window	1-1½ hours
Light Loading	12 hours
Immersion (Aqueous) Service	30 hours
Full or Chemical Service	7 days