AREMCO

HIGH TEMPERATURE SILICONE-POLYESTER COATINGS

Technical Bulletin A6-S2



Corr-Paint[™] CP4000-S

Corr-Paint[™] CP4040-S

Corr-Paint™ CP4040-S

Aremco's Corr-Paint[™] CP40xx-S series coatings are formulated using an advanced silicone-polyester resin combined with inorganic fillers and pigments to offer continuous temperature resistance to 600 °F (316 °C) and intermittent resistance to 800 °F (427 °C).

These coatings are single-part, heat curable systems that adhere to a wide range of materials including metals, ceramics, glass, quartz, and refractories, and offer outstanding resistance to outdoor weathering, UV light, salt spray corrosion, oxidation, detergents, and thermal shock.

PRODUCT HIGHLIGHTS

- Single-Part, No Mixing
- Low Viscosity
- Maximum Use Temperature, 600 °F (316 °C)
- Intermittent Use Temperature, 800 °F (427 °C)
- Bonds to Ceramics, Glass, Quartz, Metals
- Excellent Resistance to Moisture & Salt Spray
- Resists Thermal Shock
- Resists Ultraviolet Light

CP4000-S CP4060-S Black Red CP4010-S CP4070-S Aluminum Blue CP4020-S CP4080-S Yellow Gray CP4040-S CP4090-S White Brown CP4050-S CP4095-S Green Orange

* All colors are matte finish. The colors represented here are approximate and the actual product color may vary.

TYPICAL APPLICATIONS

- Bag Houses
- Boiler Casings
- Chimneys
- Children
- Cyclones
- Ducting
- Heaters
- Heat Exchangers
- Exhaust SystemsEngines
- Furnaces
- Ovens
- Kilns
- Lighting Fixtures
 Process Vessels
- Process ve
 Reformers
- Reformers
 Scrubbers
- Stacks
- Turbochargers

AVAILABLE COLORS*

HIGH TEMPERATURE SILICONE-POLYESTER COATINGS PROPERTIES

Туре		SILICONE-POLYESTER									
Pro	oduct Number	CP4000-S	CP4010-S	CP4020-S	CP4040-S	CP4050-S	CP4060-S	CP4070-S	CP4080-S	CP4090-S	CP4095-S
Color (cured)		Black	Aluminum	Gray	White	Green	Red	Blue	Yellow	Brown	Orange
Temperature Continuous, °F (°C)		600 (316)	600 (316)	600 (316)	600 (316)	600 (316)	600 (316)	600 (316)	600 (316)	600 (316)	600 (316)
Temperature Intermittent, °F (°C)		800 (427)	800 (427)	800 (427)	800 (427)	800 (427)	800 (427)	800 (427)	800 (427)	800 (427)	800 (427)
No	. Components	1	1	1	1	1	1	1	1	1	1
Vis	scosity, cP1	400-600	300-400	200-400	300–500	250–350	500–700	150–250	300–500	400–600	550–750
Sp	ecific Gravity, g/cc	1.45	1.00	1.42	1.37	1.46	1.47	1.43	1.40	1.45	1.40
Solids by Weight, % Solids by Volume, % WFT, mils (microns) ²		69.9	37.0	62.1	42.1	62.1	62.1	62.1	62.1	62.1	62.1
		57.7	36.7	58.5	49.2	57.4	57.4	59.0	57.7	58.6	58.9
		1.73 (44.0)	2.73 (69.2)	1.71 (43.4)	2.03 (51.6)	1.74 (44.3)	1.74 (44.3)	1.69 (43.0)	1.73 (44.0)	1.71 (43.3)	1.70 (43.2)
DFT, mils (microns) ³		1.0 (25.4)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)
Theoretical Dry Film Coverage ⁴ @ 1 mil, ft ² /gal (m ² /liter)		925 (22.7)	589 (14.5)	938.0 (23.0)	789.7 (19.4)	920.3 (22.6)	921.1 (22.6)	946.7 (23.2)	925.6 (22.7)	940 (23.1)	944 (23.2)
Pri	mer ⁵	NR									
6	Touch, hrs	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2	1–2
Drying	Handling, hrs	2-4	2–4	2–4	2-4	2–4	2–4	2–4	2–4	2–4	2–4
	Recoat, (min/max), hrs	1/24	1/24	1/24	1/24	1/24	1/24	1/24	1/24	1/24	1/24
Curing	Min Air Set, hrs ⁶	1	1	1	1	1	1	1	1	1	1
	Cure, °F/hrs ^{7,8}	450 / 1 or 480 / .75									
Ар	plication Temperature, °F	50–120	50–120	50–120	50–120	50–120	50–120	50–120	50–120	50–120	50–120
Thinner		PM Acetate									
Pot Life, hrs at room temp.		NA									
Flash Point, °F (°C)		118 (48)	115 (46)	115 (46)	115 (46)	115 (46)	115 (46)	115 (46)	115 (46)	115 (46)	115 (46)
VOC's, lbs/gal		3.6	5.3	3.6	3.4	3.7	3.7	3.6	3.7	3.6	3.6
Sh	elf Life @RT, months	6	6	6	6	6	6	6	6	6	6
Sto	prage Temperature, °F	40-90	40-90	40–90	40-90	40-90	40-90	40-90	40-90	40-90	40–90

Reference Notes

¹ Viscosity is measured using a Brookfield LV Viscometer, LV3 Spindle @ 30 RPM.

² Estimated Wet Film Thickness (WFT).

 ³ Recommended Dry Film Thickness (DFT).
 ⁴ Actual coverage will vary depending on material losses during mixing and application.

 ⁵ Primer is only recommended for exterior applications in which salt fog or moisture are present.

⁶ Where a value is provided for "Min Air Set", it is recommended to set the coating at room

temperature for, at minimum, the specified time prior to curing.

⁷ Adequate ventilation is required when curing these products as some outgassing will occur.

⁸ Curing is recommended but not absolutely required if the system is raised slowly to a minimum of 450 °F within 24–48 hours of application and not exposed to high moisture or rain during this initial dwell period.

Surface Preparation Notes

All surfaces should be free of oil, grease, dirt, corrosives, oxides, paints or other foreign matter. No further preparation is required when coating ceramics, refractories or graphites. Smooth metal surfaces should be abrasive blasted to an SSPC-SP6 near white blast. Remove abrasive residue using air pressure; do not clean with organic solvents.

Aremco's Corr-Prep" CPR2000 is recommended as an alternative when sandblasting is not possible. This is a specially formulated, water-based, zinc phosphate metal etching solution that is non-toxic, non-flammable, non-caustic, and non-corrosive. It etches metal to provide surface profile for superior coating adhesion to aluminum, galvanized metal, steel, and stainless steel. It also helps to improve long-term corrosion protection. Application is simple — just brush or spray liquid on the substrate, allow to sit for 20–30 minutes, then rinse off and dry substrate thoroughly prior to coating.

Application Notes: Mix thoroughly before use to redisperse fillers and pigments. Apply using a brush, roller or spray gun. When spraying, a maximum dry film thickness of 2 mils (0.002") can be achieved by applying two coats. Recommended fluid nozzle diameter is 40–50 mils, atomizing pressure of 40–50 psi, and distance from work of 8–10". Adequate ventilation is required when applying and curing the coating. Read Safety Data Sheet for further safety instructions.

Abbreviations

NA Not Applicable NR Not Required DFT Dry Film Thickness WFT Wet Film Thickness RT Room Temperature

Refer to Price List for complete order information.

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The user assumes all risk of use or handling whether or not in accordance with directions or suggestions, or used singly or in combination with other products.