

HIGH TEMPERATURE POLYSILOXANE COATINGS

Technical Bulletin A6-S3A

Aremco's Corr-Paint[™] CP40xx-S2 series silicone-ceramic coatings are single-part, room temperature cure systems that provide ultra-high temperature resistance up to 1800 °F (982 °C) along with exceptional resistance to outdoor weathering, UV, salt-spray corrosion, and flame impingement.

PRODUCT HIGHLIGHTS

- Ultra-High Temperature Resistance
- Room Temperature Curing
- Single Part, No Catalyst Required
- Sprayable, Low Viscosity
- Moisture & Salt Spray Resistant
- Flame Resistant
- UV Resistant
- High Dielectric Strength

COATINGS COLOR CONTINUOUS INTERMITTENT

CP4000-S2	Black	1000	1200
CP4000-S2-HT	Black	1400	1800
CP4010-S2	Silver	1100	1200
CP4020-S2-HT	Gray	1400	1800
CP4040-S2-HT	White	1400	1800
CP4045-S2-HT	White	1500	1600
CP4080-S2-HT	Yellow	1400	1800

TYPICAL APPLICATIONS

- Boilers
- Chimneys
- Ducting •
- Heaters •
- Heat Exchangers •
- Exhaust Systems
- Engines

- Flight Decks
- Furnaces, Ovens, Kilns
- Process Vessels



Corr-Paint[™] CP4000-S2

AVAILABLE COLORS*



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

- Reformers
- Scrubbers
- Stacks

CORR-PAINT[™] HIGH TEMPERATURE POLYSILOXANE COATINGS PROPERTIES

Pro	duct Number	CP4000-S2	CP4000-S2-HT	CP4010-S2	CP4020-S2-HT	CP4040-S2-HT	CP4045-S2-HT	CP4080-S2-HT
Col	or (cured)	Black	Black	Silver	Navy Gray	Navy White	Boron Nitride	Navy Yellow
Temperature Continuous, °F (°C)		1000 (538)	1400 (760)	1100 (593)	1400 (760)	1400 (760)	1500 (816)	1400 (760)
Temperature Intermittent, °F (°C)		1200 (649)	1800 (982)	1200 (649)	1800 (982)	1800 (982)	1700 (927)	1800 (982)
No. Components		1	1	1	1	1	1	1
Vis	cosity, cP ¹	250–500	150–500	200–500	200–400	250–500	500-1000	200–400
Spe	ecific Gravity, g/cc	1.43	1.50	1.07	1.55	1.35	1.21	1.53
Sol	ids by Weight, %	83.0	72.9	67.3	85.5	85.2	66.0	85.3
Sol	ids by Volume, %	77.1	70.1	59.6	74.5	75.5	58.8	74.4
	t Film Thickness, Estimated, s (microns)	1.3 (33.0)	1.4 (36.3)	1.7 (42.7)	1.4 (34.1)	1.3 (33.7)	1.7 (43.2)	1.34 (34.2)
· ·	Film Thickness, Estimated, s (microns)	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 @ 1 mil, ft ² /gal (m ² /liter)		1236 (30.3)	1124 (27.6)	955 (23.4)	1194 (29.3)	1211 (29.7)	944 (23.2)	1193 (29.3)
5	Touch, hrs	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
	Recoat, (min/max), hrs	1 / 24	1–2	1 / 24	1 / 24	1 / 24	1 / 24	1 / 24
Curing	Minimum Air Set, hrs ³	1	1	1	1	1	1	1
Cur	Cure Schedule, °F/hrs ^{4,5}	RT / 24–48 or 450 / 1						
Ар	olication Temperature, °F	50-120	50–120	50–120	50–120	50–120	50–120	50–120
Thinner		T-Butyl Acetate						
Flash Point, °F (°C)		~ 118 (48)	~ 113 (45)	~108 (42)	~ 118 (48)	~ 118 (48)	~ 118 (48)	~ 118 (48)
VOC's, Ibs/gal		2.0	2.5	2.9	1.8	1.7	3.3	1.8
She	elf Life @RT, months	6	6	6	6	6	6	6
Sto	rage Temperature, °F	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 Actual coverage will vary
- Actual coverage will vary depending on material losses during mixing and application.
- ³ This is the minimum time recommended to set the coating at room temperature before placing in operation or recoating.

⁴ Adequate ventilation is required when applying and curing these products as some outgassing will occur.

⁵ This coating can be cured at room temperature (RT) or heat cured more rapidly at 450 °F in one hour.

Surface Preparation Notes

Metals should be free of oil, grease, dirt, corrosives, oxides, paints or other foreign matter. Smooth metal surfaces should be abrasive blasted to an SSPC-SP6 near white blast. Remove abrasive residue using air pressure.

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, the 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

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.