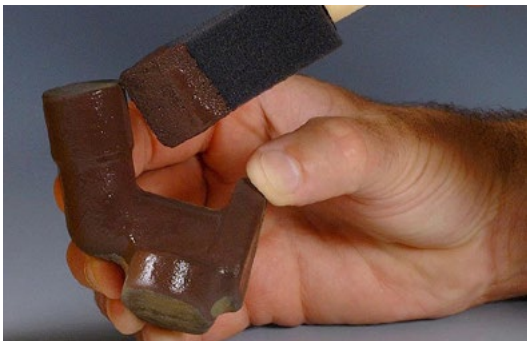
AREMCO

HIGH TEMPERATURE SILICONE EMULSION COATINGS

Technical Bulletin A6-S4

Corr-Paint™ CP4020



Corr-Paint™ CP4090

Corr-Paint™ CP4060

Corr-Paint™ CP4070

Aremco's Corr-Paint™ CP40xx series coatings are formulated using an advanced water-based silicone emulsion combined with inorganic fillers and pigments to offer VOC compliant coatings with continuous temperature resistance to 1100 °F (593 °C) and intermittent resistance to 1200 °F (649 °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, some chemicals, and thermal shock.

AVAILABLE COLORS*

- CP4000 Black
- CP4020 Gray
- CP4040 White
- CP4050 Green
- CP4055 Pale Green
- CP4060 Red
- CP4070 Blue
- CP4080 Yellow
- CP4090 Brown
- CP4095 Orange

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

PRODUCT HIGHLIGHTS

- Single-Part, No Mixing
- Low Viscosity
- Maximum Use Temperature, 1100 °F (593 °C)
- Intermittent Use Temperature, 1200 °F (649 °C)
- Bonds to Ceramics, Glass, Quartz, Metals
- Excellent Resistance to Moisture & Salt Spray
- Resists Thermal Shock
- Resists Ultraviolet Light
- Good Chemical Resistance
- Water-Based
- Low Volatile Organic Compounds (VOCs)

TYPICAL APPLICATIONS

- Bag Houses
- Boiler Casings
- Ceramic Cloth
- Ceramic Fiberboard
- Chimneys
- Cyclones
- Ducting
- Heaters
- Heat Exchangers
- Exhaust Systems
- Engines
- Furnaces, Ovens, Kilns
- Lighting Fixtures
- Process Vessels
- Reformers
- Scrubbers
- Stacks
- Turbochargers

Aremco Products, Inc., 707-B Executive Boulevard, Valley Cottage, NY 10989 **T** (845) 268-0039 **E** aremco@aremco.com **W** aremco.com

Rev. 12/22

HIGH TEMPERATURE WATER-BASED SILICONE COATINGS PROPERTIES

Product Number		CP4000	CP4020	CP4040	CP4050	CP4055	CP4060	CP4070	CP4080	CP4090	CP4095
Color (cured)		Flat Black	Gray	White	Green	Pale Green	Red	Blue	Yellow	Brown	Orange
Temperature Continuous, °F (°C)		1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	1100(593)
No. Components		1	1	1	1	1	1	1	1	1	1
Viscosity, cP[1]		400–800	400–800	400–900	500–750	500–1000	750–950	300–600	500–700	300–500	500–700
Specific Gravity, g/cc		1.32	1.28	1.27	1.31	1.35	1.31	1.25	1.33	1.32	1.32
Solids by Weight, %		51.5	44.2	44.2	48.5	55.0	46.5	44.8	47.0	44.5	44.5
Solids by Volume, %		38.1	38.2	46.1	39.5	38.1	38.3	38.5	38.0	37.8	37.8
Wet Film Thickness, Estimate, mils (microns)		2.6 (66.5)	2.6 (66.4)	2.2 (55.1)	2.5 (64.3)	2.6 (66.6)	2.6 (66.3)	2.6 (66.3)	2.6 (66.8)	2.7 (67.2)	2.6 (64.9)
Dry Film Thickness, Estimated, mils (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)	1.0 (25.4)	1.0 (25.4)	1.0 (25.4)
Theoretical Dry Film Coverage @ 1 mil, ft²/gal (m²/liter)[2]		611 (14.9)	613 (15.1)	740 (18.2)	634 (15.6)	612 (15.0)	614 (15.1)	617 (15.2)	610 (15.0)	606 (14.9)	628 (15.4)
Drying	**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
Drying	**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	**Minimum Air Set,** hrs[3]	1	1	1	1	1	1	1	1	1	1
Curing	**Cure Schedule,** °F/hrs[4,5]	450 / 1 or 480 / .75	450 / 1 or 480 / .75	450 / 1 or 480 / .75	450 / 1 or 480 / .75	450 / 1 or 480 / .75	450 / 1 or 480 / .75	450 / 1 or 480 / .75	450 / 1 or 480 / .75	450 / 1 or 480 / .75	450 / 1 or 480 / .75
Application Temperature, °F		50–120	50–120	50–120	50–120	50–120	50–120	50–120	50–120	50–120	50–120
Thinner		Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water
Flash Point, °F (°C)		> 212 (100)	> 212 (100)	> 212 (100)	> 212 (100)	> 212 (100)	> 212 (100)	> 212 (100)	> 212 (100)	> 212 (100)	> 212 (100)
VOC's, lbs/gal		1.04	0.99	0.98	0.98	0.67	0.98	1.01	0.95	0.98	0.98
Shelf Life @RT, months		6	6	6	6	6	6	6	6	6	6
Storage Temperature, °F		55–85	55–85	55–85	55–85	55–85	55–85	55–85	55–85	55–85	55–85

Reference Notes

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

[2] Actual coverage will vary depending on material losses during mixing and application.

[3] Minimum Air Set is the minimum time recommended for drying the coating prior to heat curing.

[4] Adequate ventilation is required when curing these products as some outgassing will occur.

[5] 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 period.

Surface Preparation Notes

All surfaces 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; 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, 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.