AREMCO

HIGH TEMPERATURE PROTECTIVE COATINGS

Technical Bulletin A6

Aremco's Corr-Paint™ protective coatings include the most expansive line of high temperature organic- and ceramic-based products available on the market today for applications to 1500 °F.

Corr-Paint™ CP2000

Corr-Paint™ CP3015-SS

Corr-Paint™ CP4010

Corr-Paint™ CP4060

PRODUCT HIGHLIGHTS

Corr-Paint™ CP20XX Series

These epoxy and urethane based coatings are used for producing corrosion and wear resistant barriers to 500 °F. Typical applications include tanks, pipelines, boilers, precipitators, scrubbers, bag houses, cyclones, hoppers and other process equipment used in the power, pulp and paper, and chemical processing industries.

Urethanes: One-part, oxidation and wear-resistant coatings for applications to 400 °F.

CP2000	Jet Black
CP2010	Aluminum
CP2020	Gray

Epoxies: Two-part, high-build coatings for highly corrosive applications as high as 500 °F.

CP2050-LF	Epoxy-phenolic with long glass fibers for strength and reinforcement.
CP2050-FF	Epoxy-phenolic with fine glass fibers for smooth, uniform appearance.
CP2050-NF	Epoxy-phenolic, un-filled system for aggressive acidic conditions.
CP2060	Novolac-epoxy system with silicon carbide filler.
CP2070	Novolac-epoxy, low viscosity, gray pigmented system.

Corr-Paint™ CP30XX Series

These inorganic-ceramic, aqueous-based coatings provide outstanding resistance to thermal shock, oxidation and chemical corrosion to 1500 °F. Five basic formulations are available:

CP3015-AL	Aluminum-ceramic filled coating to 1200 °F.
CP3015-BL	High emissivity, inorganic black pigmented coating to 1500 °F.
CP3015-GR	Gray-ceramic inorganic coating to 1400 °F.
CP3015-SS	Stainless steel filled, inorganic coating to 1400 °F.
CP3015-WH	White-ceramic inorganic coating to 1500 °F.

These advanced materials are specially formulated to adhere to steel and refractory products used in boilers, furnaces, rotary calciners, kilns, stacks, and other high temperature structures. Benefits include extended equipment life, lower energy costs, and increased throughput.

Corr-Paint™ CP40XX Series

These silicone-based, heat-resistant coatings are formulated using a state-of-the-art, VOC-compliant, water-dispersible silicone resin. CP40XX Series products adhere to metals, ceramics, refractories, and quartz, and offer outstanding resistance to outdoor weathering, UV light, salt spray, chemical corrosion, thermal cycling, and temperatures to 1100 °F. Standard pigments include:

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

Custom colors are available upon request. Add "-S" to part number for solvent-borne coatings resistant to 600 °F (eg. CP4000-S); Add "-S1" to part number for solvent-borne coatings resistant to 1100 °F (eg. CP4000-S1).

Corr-Paint™ CP5000

CP5000 is a two-part, water-based, inorganic zinc-rich primer which provides superior resistance to salt-fog, immersion, impact and abrasion. This primer system is compatible with all CP-Series products and other organic topcoats. It is used for priming structural steel, marine structures, storage tanks, utility systems, and chemical process equipment and piping.

Corr-Prep™ CPR2000

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 metals. It also helps to improve long-term corrosion protection. Application is simple—just brush or spray liquid on the substrate and rinse off a few minutes later and dry the substrate thoroughly.

HIGH TEMPERATURE PROTECTIVE COATINGS PROPERTIES

Type		URETHANE			EPOXY-PHENOLIC	NOVOLAC-EPOXY	
Product Number		CP2000	CP2010	CP2020	CP2050-XX[1]	CP2060[1]	CP2070
Color (cured)		Gloss Black	Aluminum	Gloss Gray	Brown-Red	Gray	Gray
Temperature Continuous, °F (°C)		400 (204)	400 (204)[2]	400 (204)[2]	400 (204)	500 (260)	300 (150)[7]
No. Components		1	1	1	2	2	2
Mix Ratio, by Weight		NA	NA	NA	1 : 1	100 : 8	100 : 42 (2 : 1 Vol)
Viscosity, cP		200–240	300–600	200–500	Paste	Paste	800–1000
Specific Gravity, g/cc		1.05	1.08	1.08	1.60	1.90	1.10
Solids by Weight, %		67.0	70.0	72.0	100.0	100.0	100.0
Solids by Volume, %		49.0	66.0	77.0	100.0	100.0	100.0
WFT, mils (microns)[3]		4.0 (101.6)	4.0 (101.6)	4.0 (101.6)	50+ (1270.0)	50+ (1270.0)	7.0 (177.8)
DFT, mils (microns)[4]		2.0 (50.8)	2.6 (67.1)	3.1 (78.7)	50+ (1270.0)	50+ (1270.0)	7.0 (177.8)
Theoretical Dry Film Coverage[5] @ 1 mil, ft²/gal (m²/liter)		722 (17.7)	1058 (25.9)	1235 (30.3)	1604 (39.3)	1604 (39.3)	1604 (39.3)
Primer		NR	NR	NR	NR	NR	NR
Drying	**Touch,** hrs	4–6	4–6	4–6	6–8	4	5
Drying	**Handling,** hrs	6–8	6–8	6–8	12–14	6–8	8
Drying	**Recoat, (min/max),** hrs	3/7	6/12	3/7	4/48	4/8	4/8
Curing	**Min Air Set,** hrs[6]	0.5	1	0.5	2	8	8
Curing	**Cure,** °F/hrs	RT/24 or 250/1	RT/24 or 250/1	RT/24 or 250/1	RT/48 or 175/4	RT/48 or 250/6	RT/24
Application Temperature, °F		50–90	50–90	50–90	50–90	50–90	50–90
Thinner		Hi-Flash Naptha	Hi-Flash Naptha	Hi-Flash Naptha	NR	NR	Xylene
Pot Life, hrs at room temp.		NA	NA	NA	0.70	0.75 (500g)	0.35 (200g)
Flash Point, °F (°C)		140 (60)	140 (60)	140 (60)	> 200 (93)	> 200 (93)	> 200 (93)
VOC's, lbs/gal		2.86	3.00	2.80	0.00	0.00	0.00
Shelf Life @RT, months		12	12	12	12	12	12
Storage Temperature, °F		40–90	40–90	40–90	40–90	40–90	40–90

Reference Notes

[1]

Technical Notes for Epoxy Coatings	CP2050-XX	CP2060
Lap Shear Strength to Aluminum, psi		
25 °C	2,700	2,300
100 °C	1,800	2,000
150 °C	900	1,200
175 °C	300	900
Flexural Strength, psi	13,400	11,500
Compressive Strength, psi	10,300	12,000
Elongation, %	3	2
Hardness, Shore D	86	90

[2] CP2010 will begin to discolor at 300 °F.
[3] Estimated Wet Film Thickness (WFT).
[4] Recommended Dry Film Thickness (DFT).
[5] Actual coverage will vary depending on material losses during mixing and application.
[6] Where a value is provided for "Min Air Set", it is recommended that the coating set at room temperature for, at minimum, the specified time prior to curing.
[7] Withstands intermittent service temperatures of 350–400 °F if cured for 2 hours at 185 °F.

Abbreviations

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

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 further prepared as follows:

CP20XX — Abrasive blast to an SSPC-SP5 profile or etch surface using Aremco's Corr- Prep™ CPR2000. Apply CPR2000 for a maximum of 10–15 minutes, then rinse with warm water and dry rapidly.

CHEMICAL RESISTANCE CHART

Chemical	Concentration	CP2000	CP2050	CP2060	CP2070
ACIDS					
Acetic Acid	20%	B	B	B	B
Acetic Acid	80%	B	B	B	B
Hydrochloric Acid	10%	A	A	A	A
Hydrochloric Acid	20%	A	A	A	A
Nitric Acid	10%	A	A	A	A
Nitric Acid	20%	B	B	B	B
Nitric Acid	50%	D	D	D	D
Nitric Acid	Concentrated	D	D	D	D
Phosphoric Acid	< 40%	B	A	A	A
Phosphoric Acid	40–100%	D	C	C	C
Sulfuric Acid	10%	A	A	A	A
Sulfuric Acid	10–75%	C	B	B	B
Sulfuric Acid	75–100%	D	D	D	D
BASES					
Potassium Hydroxide		A	A	A	A
Sodium Hydroxide	20%	A	A	A	A
Sodium Hydroxide	50%	A	A	A	A
Sodium Hydroxide	80%	A	A	A	A
FUELS & SOLVENTS					
Acetone		B	B	B	B
Alcohol		A	A	A	A
Crude Oil		A	A	A	A
Diesel		A	A	A	A
Gasoline		A	A	A	A
Heptane		A	A	A	A
Jet Fuel		A	A	A	A
Kerosene		A	A	A	A
Methyl Ethyl Ketone		B	B	B	B
Methylene Chloride		B	B	A	A
Toluene		A	A	A	A
Xylene		A	A	A	A

A No Effect or Excellent
B Minor Effect or Good
C Moderate Effect or Fair
D Severe Effect or Not Recommended

Refer to Price List for complete order information.

HIGH TEMPERATURE PROTECTIVE COATINGS PROPERTIES

Type		INORGANIC				
Product Number		**CP3015-AL**	**CP3015-BL**	**CP3015-GR**	**CP3015-SS**	**CP3015-WH**
Color (cured)		Aluminum	Black	Gray	Stainless Steel	White
Temperature Continuous, °F (°C)		1200 (649)	1500 (816)	1400 (760)	1400 (760)	1500 (816)
No. Components		1	1	1	1	1
Mix Ratio, by Weight		NA	NA	NA	NA	NA
Viscosity, cP[1]		250–900	600–900	600–900	200–500	600–900
Specific Gravity, g/cc		1.32	1.54	1.38	1.47	1.37
Solids by Weight, %		36.8	50.0	40.0	42.3	40.0
Solids by Volume, %		19.3	46.3	19.6	41.4	20.6
WFT, mils (microns)[2]		5.20 (131.9)	2.16 (54.9)	5.09 (129.4)	2.42 (61.4)	4.87 (123.6)
DFT, mils (microns)[3]		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)		309 (7.6)	742 (18.2)	315 (7.7)	664 (16.3)	330 (8.1)
Primer[5]		NR	NR	NR	NR	NR
Drying	**Touch,** hrs	1–2	1–2	1–2	1–2	1–2
Drying	**Handling,** hrs	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
Curing	**Min Air Set,** hrs[6]	1	1	1	1	1
Curing	**Cure,** °F/hrs[7]	200/2 + 500/1	200/2 + 500/1	RT / 24	RT / 24	RT / 24
Application Temperature, °F		50–90	50–90	50–90	50–90	50–90
Thinner		CP3015-AL-T	CP3015-BL-T	CP3015-GR-T	CP3015-SS-T	CP3015-WH-T
Pot Life, hrs at room temp.		NA	NA	NA	NA	NA
Flash Point, °F (°C)		> 212 (100)	> 212 (100)	> 212 (100)	> 212 (100)	> 212 (100)
VOC's, lbs/gal		0	0	0	0	0
Shelf Life @RT, months		6	6	6	6	6
Storage Temperature, °F		40–85	40–85	40–85	40–85	40–85

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 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] Curing is recommended but not absolutely required if the system is raised slowly to a minimum of 500 °F within 24–48 hours of application and not exposed to high moisture or rain during this initial dwell period.

Abbreviations

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

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-SP10 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.

Refer to Price List for complete order information.

HIGH TEMPERATURE PROTECTIVE COATINGS PROPERTIES

Type		SILICONE										INORGANIC
Product Number		**CP4000**	**CP4010**	**CP4020**	**CP4040**	**CP4050**	**CP4060**	**CP4070**	**CP4080**	**CP4090**	**CP4095**	**CP5000**
Color (cured)		Flat Black	Aluminum	Gray	White	Green	Red	Blue	Yellow	Brown	Orange	Zinc
Temperature Continuous, °F (°C)		1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	1100(593)	900(482)
No. Components		1	1	1	1	1	1	1	1	1	1	2
Mix Ratio, by Weight[1]		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2:1
Viscosity, cP[2]		400–800	200–600	400–800	400–900	500–750	750–950	300–600	500–700	300–500	500–700	1,250–1,750
Specific Gravity, g/cc		1.32	1.05	1.28	1.27	1.31	1.31	1.25	1.33	1.32	1.32	3.27
Solids by Weight, %		51.5	44.2	44.2	44.2	48.5	46.5	44.8	47.0	44.5	44.5	76.7
Solids by Volume, %		38.1	41.6	38.2	46.1	39.5	38.3	38.5	38.0	37.8	37.8	36.8
WFT, mils (microns)[3]		2.6 (66.5)	2.4 (61.0)	2.6 (66.4)	2.2 (55.1)	2.5 (64.3)	2.6 (66.3)	2.6 (66.3)	2.6 (66.8)	2.7 (67.2)	2.6 (64.9)	2.7 (69.1)
DFT, mils (microns)[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)	1.0 (25.4)	1.0 (25.4)
Theoretical Dry Film Coverage[5] @ 1 mil, ft²/gal (m²/liter)		611 (14.9)	668 (16.4)	613 (15.1)	740 (18.2)	634 (15.6)	614 (15.1)	617 (15.2)	610 (15.0)	606 (14.9)	628 (15.4)	589 (14.5)
Primer[6]		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NA
Drying	**Touch,** hrs	1–2	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	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	4 / 24
Curing	**Min Air Set,** hrs[7]	1	1	1	1	1	1	1	1	1	1	1
Curing	**Cure,** °F/hrs[8,9]	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	200 / 2
Application Temperature, °F		50–120	50–120	50–120	50–120	50–120	50–120	50–120	50–120	50–120	50–120	50–90
Thinner		Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water	Distilled Water
Pot Life, hrs at room temp.		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	≤ 24
Flash Point, °F (°C)		> 212 (100)	> 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	0.86	0.99	0.98	0.98	0.98	1.01	0.95	0.98	0.98	0.00
Shelf Life @RT, months		6	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	55–85

Reference Notes

[1] Mix ratio is powder-to-liquid (P:L)
[2] Viscosity is measured using a Brookfield LV Viscometer, LV3 Spindle @ 30 RPM.
[3] Estimated Wet Film Thickness (WFT).
[4] Recommended Dry Film Thickness (DFT).
[5] Actual coverage will vary depending on material losses during mixing and application.
[6] Primer is only recommended for exterior applications in which salt fog or moisture are present and the operating temperature is less than 750 °F.
[7] 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.
[8] Adequate ventilation is required when curing these products as some outgassing will occur.
[9] 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.

Abbreviations

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

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 further prepared as follows:
CP40XX — Abrasive blast to an SSPC-SP6 profile.
CP5000 — Abrasive blast to an SSPC-SP10, 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.

Refer to Price List for complete order information.

HIGH TEMPERATURE PROTECTIVE COATINGS PROPERTIES

Type		SILICONE-POLYESTER									
Product 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
Mix Ratio, by Weight		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Viscosity, cP[1]		400–600	300–400	200–400	300–500	250–350	500–700	150–250	300–500	400–600	550–750
Specific 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, %		69.9	37.0	62.1	42.1	62.1	62.1	62.1	62.1	62.1	62.1
Solids by Volume, %		57.7	36.7	58.5	49.2	57.4	57.4	59.0	57.7	58.6	58.9
WFT, mils (microns)[2]		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, ft²/gal (m²/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)
Primer[5]		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
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	**Min Air Set,** hrs[6]	1	1	1	1	1	1	1	1	1	1
Curing	**Cure,** °F/hrs[7,8]	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		PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate
Pot Life, hrs at room temp.		NA	NA	NA	NA	NA	NA	NA	NA	NA	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
Shelf Life @RT, months		6	6	6	6	6	6	6	6	6	6
Storage 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.

Abbreviations

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

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 further prepared as follows:
CP40XX — Abrasive blast to an SSPC-SP6 profile.
CP5000 — Abrasive blast to an SSPC-SP10, 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.

Refer to Price List for complete order information.

HIGH TEMPERATURE PROTECTIVE COATINGS PROPERTIES

Type		SILICONE									
Product Number		**CP4000-S1**	**CP4010-S1**	**CP4020-S1**	**CP4040-S1**	**CP4050-S1**	**CP4060-S1**	**CP4070-S1**	**CP4080-S1**	**CP4090-S1**	**CP4095-S1**
Color (cured)		Black	Aluminum	Gray	White	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
Mix Ratio, by Weight		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Viscosity, cP[1]		250–500	250–500	150–250	250–500	300–500	600–800	350–500	300–500	300–500	500–700
Specific Gravity, g/cc		1.49	1.00	1.35	1.34	1.36	1.34	1.35	1.36	1.38	1.37
Solids by Weight, %		57.1	41.0	57.1	57.1	57.1	57.4	56.6	56.6	56.6	56.6
Solids by Volume, %		42.5	42.4	44.4	44.4	44.3	45.1	44.3	43.4	43.2	43.4
WFT, mils (microns)[2]		2.4 (59.8)	2.4 (59.9)	2.3 (57.3)	2.3 (57.2)	2.3 (57.4)	2.2 (56.4)	2.3 (57.3)	2.3 (58.6)	2.3 (58.6)	2.3 (58.6)
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, ft²/gal (m²/liter)		681 (16.7)	680 (16.7)	711 (17.5)	712 (17.5)	710 (17.4)	723 (17.7)	711 (17.4)	696 (17.1)	694 (17.0)	697 (17.1)
Primer[5]		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
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	**Min Air Set,** hrs[6]	1	1	1	1	1	1	1	1	1	1
Curing	**Cure,** °F/hrs[7,8]	480 / .75	480 / .75	480 / .75	480 / .75	480 / .75	480 / .75	480 / .75	480 / .75	480 / .75	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		PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate	PM Acetate
Pot Life, hrs at room temp.		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Flash Point, °F (°C)		~ 118 (48)	~ 108 (42)	~ 118 (48)	~ 118 (48)	~ 118 (48)	~ 118 (48)	~ 118 (48)	~ 118 (48)	~ 118 (48)	~ 118 (48)
VOC's, lbs/gal		5.3	5.7	4.8	4.8	4.9	4.8	4.9	4.9	5.0	5.0
Shelf Life @RT, months		6	6	6	6	6	6	6	6	6	6
Storage 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.

Abbreviations

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

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 further prepared as follows:
CP40XX — Abrasive blast to an SSPC-SP6 profile.
CP5000 — Abrasive blast to an SSPC-SP10, 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.

Refer to Price List for complete order information.