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 1300 °F.

## 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:

| | |
|---|---|
| CP3000 | Ceramic filled coating to 1300 °F. |
| CP3015-AL | Aluminum-ceramic filled coating to 1400 °F. |
| CP3015-BL | High emissivity, inorganic black pigmented coating to 1500 °F. |
| CP3015-IO | Micaceous iron oxide filled, inorganic coating to 1400 °F. |
| CP3015-SS | Stainless steel filled, 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* | CP4030 Off-White | CP4060 Red | CP4090 Brown |
| CP4010 Aluminum* | CP4040 White | CP4070 Blue | CP4095 Orange |
| CP4020 Gray | CP4050 Green | CP4080 Yellow | |

Additional colors are available upon request. *Formulations based on solvent-borne high gloss systems are available. Add –S to part number to order solvent-borne coating. Note: Original formulation for Aremco-Coat™ 567 has been replaced by CP4040-S.

### 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, 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.

| Chemical Resistance | 2050-XX | 2060/2070 |
|---|---|---|
| Acetic Acid | Good | Excellent |
| Acetone | Good | Good |
| Jet Fuel | Excellent | Excellent |
| Alcohol | Excellent | Excellent |
| Crude Oil | Excellent | Excellent |
| Diesel | Excellent | Excellent |
| Gasoline | Excellent | Excellent |
| HCl (10%) | Excellent | Excellent |
| HCl (20%) | Good | Good |
| Heptane | Excellent | Excellent |
| Kerosene | Excellent | Excellent |
| MEK | Good | Good |
| Methylene Chloride | Not Good | Excellent |
| $HNO_2$ (10%) | Excellent | Excellent |
| $HNO_3$ (20%) | Good | Good |
| Phosphoric Acid | Good-Excellent | Good-Excellent |
| Potassium Chloride | Excellent | Excellent |
| Sodium Hydroxide | Excellent | Excellent |
| Sulfuric Acid | Good-Excellent | Good-Excellent |
| Toluene | Good | Excellent |
| Xylene | Excellent | Excellent |

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Rev. 9/09

# HIGH TEMPERATURE PROTECTIVE COATINGS PROPERTIES

| Product Number | | CP2000 | CP2010 | CP2020 | CP2050-XX① | CP2060① | CP2070 | CP3000 | CP3015-AL | CP3015-BL | CP3015-IO | CP3015-SS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Type** | | Urethane | Urethane | Urethane | Epoxy-Phenolic | Novolac-Epoxy | Novolac-Epoxy | Inorganic | Inorganic | Inorganic | Inorganic | Inorganic |
| **Color** (cured) | | Gloss Black | Aluminum | Gloss Gray | Brown | Gray | Gray | Gray | Aluminum | Black | Iron Oxide Gray | Stainless Steel Gray |
| **Temperature Continuous,** °F (°C) | | 400 (204) | 400 (204)② | 400 (204)② | 400 (204) | 500 (260) | 300 (150)⑧ | 1300 (704) | 1400 (760) | 1500 (816) | 1400 (760) | 1500 (816) |
| **Solids by Weight,** % | | 67.0 | 70.0 | 72.0 | 100.0 | 100.0 | 100.0 | 71.0 | 41.3 | 51.5 | 52.0 | 47.0 |
| **Solids by Volume,** % | | 49.0 | 66.0 | 77.0 | 100.0 | 100.0 | 100.0 | 54.2 | 16.6 | 21.7 | 23.9 | 22.6 |
| **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) | 4.0 (101.6) | 6.0 (152.4) | 5.0 (127.0) | 5.0 (127.0) | 5.0 (127.0) |
| **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) | 2.2 (55.9) | 1.0 (25.4) | 1.9 (48.3) | 1.2 (30.5) | 1.1 (28.7) |
| **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) | 870 (21.3) | 266 (6.5) | 348 (8.5) | 383 (9.4) | 363 (8.9) |
| **Primer** | | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR |
| **Application Temperature,** °F | | 50-90 | 50-90 | 50-90 | 50-90 | 50-90 | 50-90 | 50-90 | 50-90 | 50-90 | 50-90 | 50-90 |
| Drying | **Touch,** hrs | 4-6 | 4-6 | 4-6 | 6-8 | 4 | 5 | 0.5 | 1-2 | 1-2 | 1-2 | 1-2 |
| Drying | **Handling,** hrs | 6-8 | 6-8 | 6-8 | 12-14 | 6-8 | 8 | 1 | 2-4 | 2-4 | 2-4 | 2-4 |
| Drying | **Recoat,** (min/max), hrs | 3/7 | 6/12 | 3/7 | 4/48 | 4/8 | 4/8 | 0.1/NA | 1/4 | 1/4 | 1/4 | 1/4 |
| Curing | **Min Air Set,** hrs⑥ | .5 | 1 | 0.5 | 2 | 8 | 8 | .5 | 1 | 1 | 1 | 1 |
| 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 | 200/3 | 200/2+500/1⑦ | 200/2+500/1⑦ | 200/2+500/1⑦ | 200/2+500/1⑦ |
| **No. Components** | | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 |
| **Mix Ratio,** by weight | | NA | NA | NA | 1:1 | 100:8 | 100:42 (2:1 by volume) | NA | NA | NA | NA | NA |
| **Mixed Viscosity,** cps | | 200-240 | 300-600 | 200-500 | Paste | Paste | 800-1000 | 1200-1800 | 250-450 | 2800-4500 | 400-1000 | 500-1000 |
| **Thinner** | | Hi-Flash Naptha | Hi-Flash Naptha | Hi-Flash Naptha | NR | NR | Xylene | CP3000-T | CP3015-T | CP3015-T | CP3015-T | CP3015-T |
| **Specific Gravity,** gms/cc | | 1.05 | 1.08 | 1.08 | 1.6 | 1.9 | 1.1 | 1.70 | 1.32 | 1.58 | 1.57 | 1.51 |
| **Pot Life,** hrs at room temp. | | NA | NA | NA | .7 | .75 (500 gms) | .35 (200 gms) | NA | NA | NA | NA | NA |
| **Flash Point,** °F (°C) | | 140 (60) | 140 (60) | 140 (60) | >200 (93) | >200 (93) | >200 (93) | NA | 0.0 | 0.0 | NA | NA |
| **VOC's,** lbs/gal | | 2.86 | 3.00 | 2.80 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 | 0.0 | 0.00 | 0.0 |
| **Shelf Life** @ RT, Months | | 12 | 12 | 12 | 12 | 12 | 12 | 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 | 40-90 |

**Reference Notes**

① **Technical Notes for Epoxy Coatings**

| Technical Notes for Epoxy Coatings | CP2050-XX | CP2060 |
|---|---|---|
| Hardness, Shore D | 86 | 90 |
| 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 |

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 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.
⑧ Withstands intermittent service temperatures of 350-400 °F if cured for 2 hours at 185 °F.

**Abbreviations**

NR - Not Required or Recommended
NA - Not Applicable
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.

**CP30XX** – Abrasive blast to an SSPC-SP10, near-white blast (.001" profile). Remove abrasive residue using air pressure — do not clean with organic solvents.

# HIGH TEMPERATURE PROTECTIVE COATINGS PROPERTIES

| Product Number | | CP4000 | CP4010 | CP4020 | CP4030 | CP4040 | CP4050 | CP4060 | CP4070 | CP4080 | CP4090 | CP4095 | CP5000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Type** | | Silicone | Silicone | Silicone | Silicone | Silicone | Silicone | Silicone | Silicone | Silicone | Silicone | Silicone | Inorganic |
| **Color** (cured) | | Flat Black | Silver-Gray | Medium Gray | Off-White | White | Green | Red | Blue | Yellow | Brown | Orange | Gray |
| **Temperature Continuous,** °F (°C) | | 1100 (593) | 1100 (593) | 1100 (593) | 1100 (593) | 1100 (593) | 1100 (593) | 1100 (593) | 1100 (593) | 1100 (593) | 1100 (593) | 1100 (593) | 1000 (538) |
| **Solids by Weight,** % | | 40.5 | 35.5 | 56.5 | 50.0 | 51.0 | 62.8 | 56.8 | 58.0 | 57.9 | 52.5 | 54.5 | 55.0 |
| **Solids by Volume,** % | | 30.3 | 33.2 | 38.5 | 38.9 | 49.2 | 37.5 | 44.1 | 39.7 | 45.7 | 37.7 | 38.2 | 36.4 |
| **WFT,** mils (microns)① | | 5.0 (127.0) | 4.0 (101.6) | 5.0 (127.0) | 5.0 (127.0) | 4.0 (101.6) | 5.0 (127.0) | 4.0 (101.6) | 4.0 (101.6) | 4.0 (101.6) | 5.0 (127.0) | 5.0 (127.0) | 4.0 (101.6) |
| **DFT,** mils (microns)② | | 1.5 (38.1) | 1.5 (38.1) | 1.9 (48.6) | 1.9 (48.6) | 2.0 (50.8) | 1.9 (48.3) | 1.8 (45.7) | 1.6 (40.6) | 1.8 (45.7) | 1.9 (48.3) | 1.9 (48.3) | 1.5 (38.1) |
| **Theoretical Dry Film Coverage**③ @ 1 mil, ft²/gal, (m²/liter) | | 486 (11.9) | 533 (13.0) | 618 (15.1) | 624 (15.3) | 789 (19.3) | 602 (14.7) | 707 (17.3) | 637 (151.6) | 733 (18.0) | 605 (14.8) | 613 (15.0) | 585 (14.4) |
| **Primer**⑦ | | CP5000 | NR | CP5000 | CP5000 | CP5000 | CP5000 | CP5000 | CP5000 | CP5000 | CP5000 | CP5000 | NR |
| **Application Temperature,** °F | | 50-120 | 50-120 | 50-120 | 50-120 | 50-120 | 50-120 | 50-120 | 50-120 | 50-120 | 50-120 | 50-120 | 50-90 |
| Drying | **Touch,** hrs | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | .25 |
| Drying | **Handling,** hrs | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| Drying | **Recoat,** (min/max), hrs | 0.5/NA | 2.5/NA | 0.5/NA | 0.5/NA | 0.5/NA | 0.5/NA | 0.5/NA | 0.5/NA | 0.5/NA | 0.5/NA | 0.5/NA | 0.1/NA |
| Curing | **Min Air Set,** hrs④ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 24 |
| Curing | **Cure,** °F/hrs⑤ | 450/1 | 450/1 | 450/1 | 450/1 | 450/1 | 450/1 | 450/1 | 450/1 | 450/1 | 450/1 | 450/1 | 200/2⑥ |
| **No. Components** | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| **Mix Ratio,** by weight | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1:1 |
| **Mixed Viscosity,** cps | | 700-1200 | 700-1400 | 1000-2000 | 700-1200 | 700-1500 | 1500-3000 | 4000-6000 | 1000-3000 | 1500-2800 | 600-1000 | 600-1000 | 800-1200 |
| **Thinner** | | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water | Water |
| **Specific Gravity,** gms/cc | | 1.32 | 1.16 | 1.63 | 1.40 | 1.41 | 1.75 | 1.60 | 1.63 | 1.63 | 1.61 | 1.56 | 1.60 |
| **Pot Life,** hrs at room temp. | | NA | 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) | NA |
| **VOC's,** lbs/gal | | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.00 |
| **Shelf Life** @ RT, Months | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 12 |
| **Storage Temperature,** °F | | 40-90 | 40-90 | 40-90 | 40-90 | 40-90 | 40-90 | 40-90 | 40-90 | 40-90 | 40-90 | 40-90 | 55-95 |

**Reference Notes**

① Estimated Wet Film Thickness (WFT).
② Recommended Dry Film Thickness (DFT).
③ Actual coverage will vary depending on material losses during mixing and application.
④ 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.
⑤ Adequate ventilation is required when curing these products. Outgassing will occur above 300 °F and cease after 750 °F. An additional 30 minutes is required at the highest service temperature if service temperature is below 750 °F.
⑥ 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.
⑦ Primer is only recommended for exterior applications in which salt fog or moisture are present.

**Abbreviations**

NR - Not Required or Recommended
NA - Not Applicable
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.

Refer to Price List for complete order information.