



Chemical Coatings

CC-A22

KEM AQUA® 70P Water Reducible Metal Primer

Black E61B571
 Gray E61A570
 White E61W573
 Red Oxide E61R572

<u>DESCRIPTION</u>	<u>CHARACTERISTICS</u>	<u>SPECIFICATIONS</u>
<p>Kem Aqua® 70P Water Reducible Metal Primers are fast drying alkyd type primers for general industrial use on steel either as a single shop coat or as the primer for Kem Aqua 280 Water Reducible Enamels and Kem Aqua 400 Waterborne Enamels. They offer VOC compliance, excellent corrosion resistance, early water resistance, and no flash point.</p> <p>Advantages:</p> <ul style="list-style-type: none"> VOC compliant*, 2.8 lb/gal - low solvent emissions Fast air drying Excellent corrosion resistance Good early moisture resistance Excellent adhesion to untreated clean metal, both cold and hot rolled steel Reduces with water - means considerable cost savings in solvents HAPS free as packaged No flash point - reduced fire hazards - possible lower insurance rates No critical recoat time when topcoated with Kem Aqua 280 Water Reducible Enamel Application by various spray methods Lower odor improves working conditions Water can be used for cleanup of spray guns and other equipment Complete water systems with Kem Aqua 280 Water Reducible Enamel and Kem Aqua 400 Waterborne Enamel May be topcoated with solvent based air drying enamels Free of lead hazards as packaged in compliance with Consumer Product Safety Commission's (CPSC) 16 CFR Chapter II: Subchapter B, part 1303. <p>*VOC compliance limits vary from state to state; please consult local Air Quality rules and regulations.</p>	<p>Gloss: Flat</p> <p>Volume Solids: 35 ± 2% may vary by color</p> <p>Viscosity: as packaged 35-50 seconds #5 Zahn Cup 80-90 Krebs Units reduced 7% with water 25-35 seconds #3 Zahn Cup</p> <p>Recommended film thickness: Mils Wet 3.0 - 3.9 Mils Dry 1.0 - 1.3</p> <p>Spreading Rate (no application loss) @ 1-1.3 mil dft: 407-593 sq ft/gal</p> <p>Drying (1.0 mils dft, 77°F, 50% RH): To Touch: 30-45 minutes To Handle: 60-90 minutes Tack Free: 45-60 minutes To Recoat: 30-60 minutes Force Dry: 15-30 minutes at 150-180°F</p> <p>Good air movement and humidity control are necessary for proper drying of water reducible coatings.</p> <p>Flash Point: none</p> <p>pH: 8.5 - 8.9</p> <p>Package Life: 1 year, unopened</p> <p>Air Quality Data: Non-photochemically reactive Volatile Organic Compounds (VOC) as packaged, less water, maximum 2.49 lb/gal, 299 g/L reduced 10% with water: 2.49 lb/gal, 299 g/L</p> <p>Volatile Organic Emissions as packaged, maximum 1.6 lb/gal, 192 g/L HAPS free as packaged, 0.00 lbs HAPS per gallon solids</p> <p>An Environmental Data Sheet is available from your local Sherwin-Williams facility.</p>	<p>General: Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, any contamination, and surface passivation treatments to ensure optimum adhesion and coating performance properties. Consult Metal Preparation Brochure CC-T1 for additional details.</p> <p>Aluminum: if untreated, prime with Industrial Wash Primer, P60G2, or Kem Aqua Wash Primer, E61G520.</p> <p>Galvanized Steel: if untreated, prime with Industrial Wash Primer, P60G2, or Kem Aqua Wash Primer, E61G520.</p> <p>Steel or Iron: Remove rust, mill scale, and oxidation products. For best results, treat the surface with a proprietary surface chemical treatment of zinc or iron phosphate to improve corrosion protection.</p> <p>Testing: Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion and compatibility prior to full scale application.</p>

APPLICATION

Typical Setups

Water reducible enamels must be applied at higher viscosities than solvent based enamels. They apply and atomize easier at higher viscosities. Do not over reduce.

Conventional Spray:

Air Pressure 50 PSI
Fluid Pressure 8-12 PSI
Tip..... .055-.070"
Reducer water
Reduction as needed up to 10%

Airless Spray:

Pressure 1400-2500 PSI
Tip..... .011-.013"
Reducer water
Reduction as needed up to 10%

Air Assisted Airless:

Atomizing Air 20-30 PSI
Fluid Pressure 600-900 PSI
Tip..... .011" - .013"
Reducer water
Reduction as needed up to 10%

HVLP:

Air Pressure max at the cap.....10 PSI
Fluid Pressure.....6-8 PSI
Tip..... .055-.070"
Reducer water
Reduction as needed up to 10%

Dip:

Reducer water
Reduction 25-35 seconds Zahn 3
a 3:1 blend of water and Butyl Cellosolve, R6K25 is necessary for tank maintenance. Monitor and adjust tanks for viscosity, pH (8.5-8.9), and stability. Excessive agitation or turbulence on part immersion or withdrawal may cause foaming.

Cleanup:

Use water when wet. If dried, clean with Butyl Cellosolve or MEK.
Follow manufacturer's safety recommendations when using any solvent.

SPECIFICATIONS

Product Limitations:

- Package stability is 12 months. Indoor storage at 35-95°F is recommended.
- Higher relative humidity will increase dry time.
- Do not spray at air temperatures below 50°F.
- Topcoat with Kem Aqua 280 Water Reducible Enamel or other water reducible air drying alkyd enamels. Do not topcoat with latex coatings like Kem Aqua Gloss Enamel.
- May be topcoat with solvent based alkyd enamels after 24-48 hours air dry.
- Liquid water reducible coatings may cause corrosion/rusting in the presence of steel. Tanks, containers, piping, and application equipment should be lined, stainless steel, or plastic.
- A common property of water reducible alkyds, such as Kem Aqua 70P, is a rise in viscosity (up to 25%) over time. If this occurs, the product can be reduced with water to the desired application viscosity without any detrimental effects on performance. If viscosity increases in excess of 25%, contact your local Sherwin-Williams Representative for assistance.
- Heavier film thickness will give slower dry time and higher gloss. Follow recommended film thickness for optimum performance.

Performance Tests

Substrate: clean, cold rolled steel
Primer: @1.0 - 1.3 mils dft
Salt Spray Test 240 hours
Freeze/Thaw Cycles 4 cycles
Conical Mandrel (1/8 inch) Pass
Cross hatch adhesion Pass 4B minimum

CAUTIONS

FOR INDUSTRIAL SHOP APPLICATION

Thoroughly review product label for safety and cautions prior to using this product. A Material Safety Data Sheet is available from your local Sherwin-Williams facility. Please direct any questions or comments to your local Sherwin-Williams facility.

Note: Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application which are not known or under our control, The Sherwin-Williams Company cannot make any warranties as to the end result.