



General Industrial Coatings

CC-A22

Kem Aqua® 70P Water Reducible Metal Primer

Black.....E61B571 Red Oxide.....E61R572
 Gray.....E61A570 White.....E61W573
 Custom Blend Series E61SX

DESCRIPTION

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 8710 Water Reducible Enamels and Kem Aqua 400 Waterborne Enamels. They offer VOC* of less than 2.8 lbs/gal, good corrosion resistance and no flash point.

Advantages:

- VOC as packaged <2.8 lb/gal, 336 g/L
- Fast air drying; process efficient
- Offers good corrosion resistance
- Offers good adhesion to untreated clean metal, both cold and hot rolled steel
- Reduces with water** considerable cost savings and improved working conditions
- No critical recoat time when topcoated with Kem Aqua 8710 Water Reducible Enamels
- Application by various spray methods
- Complete water systems with Kem Aqua 8710 Water Reducible Enamel and Kem Aqua 400 Waterborne Enamel
- May be topcoated with solvent-based air drying enamels after 24-48 hours air dry
- Complies with 2.8 VOC solvent emissions.
- Formulated to be HAPS free.
- Free of chromate hazards.

* VOC Compliance limits vary from state to state; please consult local Air Quality rules and regulations.

** To ensure optimal coating performance and stability, it is recommended to use deionized water for reduction.

An Environmental Data Sheet is available from your local Sherwin-Williams facility or at www.PaintDocs.Com.

CHARACTERISTICS

Gloss: Flat

Volume Solids: 35 ± 2 %
 Varies by color

Viscosity (at 77° F):
 As Packaged: 35-50 secs., #5 Zahn Cup
 80-90 Krebs Units
 Reduced 7% With Water:
 25-35 secs., #3 Zahn Cup

Recommended Film Thickness:
 Mils Wet 2.9-3.7
 Mils Dry 1.0-1.3

Spreading Rate (no application loss):
 410-595 ft.²/gal. at 1.0-1.3 mils DFT

Cure:
 Air Dry or Force Dry 15-30 mins. @ 150-180° F

Drying: 1.0 mil at 77° F, 50% RH
 To Touch 30-45 minutes
 Tack Free 45-60 minutes
 To Handle 60-90 minutes
 To Recoat w/ Itself 30-60 minutes

Good air movement and humidity control are necessary for proper drying of water reducible coatings.

Flash Point (Pensky Martens Closed Cup): None

pH: 8.5-8.9

Air Quality Data:

- Non-Photochemically Reactive
- Volatile Organic Compounds (VOC)
 Theoretical, as packaged, less water and exempt solvents < 2.80 lb/gal, < 336 g/L
- Volatile Hazardous Air Pollutants (VHAPS), as packaged
 No Reportable VHAPS

Recommended Storage: Inside, sealed container, 35-95° F, **freeze hazard.**

Package Life: 1 year, unopened

SPECIFICATIONS

General: All substrates should be free of mold release, oil, grease, dirt, fingerprints, drawing compounds, surface passivation treatments and any other contaminants to ensure optimum adhesion and coating performance. Consult Metal Preparation brochure CC-T1 for additional details.

Aluminum: If untreated, prime with Industrial Wash Primer, P60G2, or Kem Aqua Wash Primer, E61G522.

Galvanized Steel: If untreated, prime with Industrial Wash Primer, P60G2, or Kem Aqua Wash Primer, E61G522.

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.

Testing: The information, data, and recommendations set forth in this Product Data Sheet are based upon test results believed to be reliable. However, due to the wide variety of substrates, substrate properties, surface preparation methods, equipment and tools, application methods, and environments, the customer should test the complete system for adhesion, compatibility and performance prior to full scale application.

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.

Reduction: To ensure optimal coating performance and stability it is recommended to use deionized water for reduction.

May be applied by: Conventional Spray
Airless Spray
Air Assisted Airless Spray
Dip
HVLP Spray

Conventional Spray:

Air Pressure	50 psi
Fluid Pressure	8-12 psi
Tip	0.055-0.070 in.
Reducer	Water
Reduction	As needed, up to 10%

Airless Spray:

Fluid Pressure	1,400-2,500 psi
Tip	0.011-0.013 in.
Reducer	Water
Reduction	As needed, up to 10%

Air Assisted Airless Spray:

Air Assist Pressure	20-30 psi
Fluid Pressure	600-900 psi
Tip	0.011-0.013 in.
Reducer	Water
Reduction	As needed, up to 10%

Dip:

Reducer	Water
Reduction	25-35 seconds, #3 Zahn Cup

- A 3:1 blend of water and R6K25 (Butyl Cellosolve®) is necessary for tank maintenance.
- Monitor and adjust tanks for viscosity, (pH = 8.5-8.9) and stability.
- Excessive agitation or turbulence during part immersion or withdrawal may cause foaming.

HVLP Spray:

Air Pressure	Max 10 psi at cap
Fluid Pressure	6-8 psi
Tip	0.055-0.070 in.
Reducer	Water
Reduction	As needed, up to 10%

Equipment/application guidelines are only guidelines and individual application & process parameters will dictate exact requirements.

Cleanup: Clean tools/equipment immediately after use with R6K25 (Butyl Cellosolve) or MEK.

Follow manufacturer's safety recommendations when using any solvent.

ADDITIONAL INFORMATION

1. Drying time is dependent on film thickness and atmospheric conditions.
 - Follow recommended film thickness for optimum performance.
 - Do not spray at air temperatures below 50° F.
 - Heavier film thickness causes slow drying.
 - Higher relative humidity will increase dry time.
2. Topcoat with Kem Aqua 8710 Water Reducible Enamel or other water reducible air drying alkyd enamels. Do not topcoat with latex coatings like Kem Aqua 8530.
3. May be top coated with solvent-based alkyd enamels after 24-48 hours air dry.
4. 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.
5. 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.
6. Compatible with Opticolor® Express & Phoenix® colorants. Maximum colorant tint load is 2 ounces per gallon in the E61W573.

Performance Tests*

Substrate:	Clean cold rolled steel
Primer:	1.0 mil DFT
Cure:	Air dry, 14 days

Salt Spray Test	Passes 240 hours
Freeze/Thaw Cycles	Passes 4 Cycles
Conical Mandrel, 1/8"	Pass
Cross Hatch Adhesion	Pass 4B Minimum

*Performance test results may vary depending on dry film thickness, substrate tested and post-cure duration.

All trademarks are the property of their respective owners.

CAUTIONS

FOR INDUSTRIAL SHOP APPLICATION ONLY

Thoroughly review the product label and Safety Data Sheet (SDS) for safety information and cautions prior to using this product.

To obtain the most current version of the Environmental Data Sheet (EDS), Product Data Sheet (PDS), or Safety Data Sheet (SDS) please visit your local Sherwin-Williams facility or www.PaintDocs.Com.

Please direct any questions or comments to your local Sherwin-Williams facility.

Note:

All purchases of products from Sherwin-Williams are exclusively subject to Sherwin-Williams' [Standard Terms And Conditions Of Sale](#). Please review these terms and conditions prior to the purchase of the products.

Sherwin-Williams warrants the product to be free of manufacturing defect in accordance with Sherwin-Williams' quality control procedures. Except for the preceding sentence, due to factors that are outside of Sherwin-Williams' control, including substrate selection, and customer handling, preparation, and application, Sherwin-Williams cannot make any other warranties related to the product or the performance of the product. SHERWIN-WILLIAMS DISCLAIMS ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Liability for products proven to be defectively manufactured will be limited solely to replacement of the defective product or the refund of the purchase price paid for the defective product, as determined by Sherwin-Williams. Under no circumstances shall Sherwin-Williams be liable for indirect, special, incidental or consequential damages, lost profits or punitive damages arising from any cause whatsoever.