



Product Finishes

CC-E15

KEM AQUA® 1400 Water Reducible Baking Enamel

Low Gloss Black.....F83B420
Gloss Black.....F83B490
Gloss Blending WhiteF83W492
Gloss Clear.....F83V491
Custom Blend.....F83FX Series

DESCRIPTION	CHARACTERISTICS	SPECIFICATIONS
<p>KEM AQUA® 1400 Water Reducible Baking Enamel is a waterborne alkyd-amino enamel designed for general metal finishing. It provides a hard, tough coating at less than 2.3 lb/gal VOC* without the hazards of flammable solvents.</p> <p>Advantages:</p> <ul style="list-style-type: none"> VOC as packaged <2.3 lb/gal; 275 g/L Excellent flow and leveling Excellent flexibility and toughness Reduces with water**, means considerable cost savings in solvent No flash point - reduced fire hazards - possible lower insurance rates Water can be used for cleanup of equipment Improved working conditions Full color and lower gloss range available with intermix system and Kem Aqua® Flatting Base D64F505 (consult Product Data Page CC-S13) Ideal for use on a wide range of metal products for both interior and exterior application Versatile - may be applied by conventional, HVLP, air-assisted airless, and electrostatic spray methods <p>Not Stocked—Special Order Only: Low Gloss Blending White..... F83W422 Low Gloss Clear..... F83V421</p> <p>*VOC compliance limits vary from state to state; please consult local Air Quality rules and regulations.</p> <p>**To ensure optimal coating performance and stability, it is recommended to use</p>	<p>Gloss: High gloss 85 units (60°) Low gloss 10-15 units (60°)</p> <p>Volume Solids: 33-37% ± 1% may vary by color</p> <p>Viscosity: 85-95 Krebs Units Reduced 10-15% with water 30-40 seconds #3 Zahn Cup</p> <p>Recommended film thickness: Mils Wet 2.5 - 3.0 Mils Dry 0.8 - 1.0</p> <p>Spreading Rate (no application loss) @ 1 mil dft: 530-595 sq ft/gal</p> <p>Baking Schedule: Flash off: 10-15 minutes then 10-15 minutes at 325°F Good air movement helps water evaporate during flash off.</p> <p>Flash Point: None, Seta Flash Closed Cup</p> <p>Package Life: 1 year, unopened</p> <p>Storage: Inside, protect from freezing</p> <p>pH: 7.8-8.7</p> <p>Air Quality Data:</p> <ul style="list-style-type: none"> Non-photochemically reactive Volatile Organic Compounds (VOC) theoretical as packaged, less water and exempt solvents <2.3 lb/gal, 275 g/L <p>An Environmental Data Sheet is available from your local Sherwin-Williams facility or at www.paintdocs.com.</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 or Galvanized Steel: For best results, treat the surface with a proprietary chrome phosphate metal treatment, or prime with Kem Aqua® Wash Primer, E61G522.</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: 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.</p>

APPLICATION

Typical Setups

Water Reducible Enamels must be applied at higher viscosities than solvent based enamels. They do apply and atomize easily at higher viscosities.

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

Conventional Spray:

Air Pressure..... 30-60 psi
Fluid Pressure 4-10 psi
Reducer..... water
Reduction Rate... as needed up to 15%
Reduce to 30-40 seconds #3 Zahn Cup, do not over-reduce.

Air Assisted Airless:

Air Pressure.....30 psi
Fluid Pressure600-2200 psi
Tip011"
Reduction Rate..... none

Electrostatic Spray:

Equipment must be isolated
Reduction Rate..... 10-15%
Reducer water
Reduce to 30-35 seconds #3 Zahn Cup, do not over-reduce.

For Turbo Bells (Ransburg RPM 5062-PC):

Fluid Pressure8 psi
Fluid Tip.....3/32"
Turbine Air..... 10-20 psi
Bell RPM 15-30,000
Voltage 90KV
Delivery Rate 160 cc/min

HVLP (Binks Mach I BBR Gun):

Air Pressure.....65 psi
Fluid Pressure 4-8 psi
Cap/Tip.....97P/92
Reducer..... water
Reduction Rate..... 10-15%
Reduce to 30-35 seconds #3 Zahn Cup, do not over-reduce.

Cleanup:

Clean tools/equipment immediately after use with water when paint is wet. When dry, use Butyl Cellosolve or MIBK.

Follow manufacturer's safety recommendations when using any solvent.

ADDITIONAL INFORMATION

- Avoid freezing. Indoor storage at temperatures between 35-95°F is recommended.
- Do not spray at temperatures below 50°F.
- Store in plastic or lined metal containers because it contains water.
- Due to wide variations in aluminum substrate and treatment, adhesion should be tested before use.
- Do not apply over 1.25 mils dry film thickness per coat because of potential solvent popping during the bake cycle.
- To ensure adequate cure, minimum bake is 10 minutes at 325°F or 20 minutes at 300°F. Longer bake and/or higher temperature may be needed depending on the mass of ware coated.
- Paint is recoatable with itself after baking provided the first coat is not over baked.
- Water reducible coatings may cause corrosion in the presence of steel. Tanks, containers, piping and application equipment should be lined, stainless steel, or plastic.
- Product will not texture. Use Kem Aqua® 1500T Waterborne Baking Enamel for texture bake finish.

Performance Tests

Substrate:..... Bonderite® 1000 steel panels
Salt Spray Test
ASTM B117100 hours
Humidity
ASTM D2247, 100°F, 100% RH....250 hours
Conical Mandrel
ASTM D633.....passes 1/8" mandrel
Impact Resistance, Direct
ASTM D2794..... 120 in lb
Impact Resistance, Reverse
ASTM D2794..... 40 in lb
Pencil Hardness
ASTM D3363.....HB-H
Crosshatch AdhesionExcellent
MEK, 100 double rubs..... slight burnish

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CAUTIONS

FOR INDUSTRIAL SHOP APPLICATION ONLY

Thoroughly review 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.

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