



Chemical Coatings

CC-E6

KEM AQUA® 600T Water Reducible Enamel

Black F73B560
 Clear F73V561
 White F73W562

<u>DESCRIPTION</u>	<u>CHARACTERISTICS</u>	<u>SPECIFICATIONS</u>
<p>KEM AQUA® 600 T Water Reducible Enamel is a one component, 2.3 lb/gal VOC complying, acrylic latex, water reducible coating developed for the electronic business machine market. This product can be used as a smooth or texture coating on treated metal and structural foam plastics.</p> <p>Advantages:</p> <ul style="list-style-type: none"> • VOC of less than 2.3 lbs/gal • Meets the performance requirements of the electronic cabinetry industry • Air dry or force dry — low energy cure • Excellent solvent resistance • One package - no catalyst • Wide range of texture patterns available • Reduce and cleanup with water — means possible cost savings for solvent and insurance, reduced fire hazards, lower odors and improved working conditions • Available in a broad range of colors • Ideal for a wide range of product finishing • No flash point • Low HAPS solvent content • Free of lead hazards as packaged in compliance with Consumer Product Safety Commission's (CPSC) 16CFR Chapter II: Subchapter B, part 1303. 	<p>Gloss: 30-35 units may be adjusted with D64F505</p> <p>Volume Solids: 36-40 ± 1% varies by color</p> <p>Viscosity: Brookfield RVT, #4 spindle, 5000-6000 centipoise at 20 rpm Thixotropy ratio 10/100 rpm 4.5-5.5</p> <p>Recommended film thickness: Mils Wet 3.0 - 4.0 Mils Dry 1.2 - 1.6</p> <p>Spreading Rate (no application loss) 370-522 sq.ft./gal. @ 1.2-1.6 mil DFT</p> <p>Drying (1.0 mils DFT, 77°F, 50% RH): To Touch: 7-15 minutes Tack Free: 15-20 minutes To Handle: 30-45 minutes To Pack: overnight Force Dry: 30 minutes at 140°F 10-15 minutes flash off between smooth and texture coats.</p> <p>Good air movement and humidity control is necessary for proper drying of water reducible coatings.</p> <p>Flash Point: None, Seta Flash Closed Cup</p> <p>Package Life: 1 year, unopened</p> <p>pH: 8.0 - 8.5</p> <p>Air Quality Data: (Theoretical) Non-photochemically reactive Volatile Organic Compounds (VOC) as packaged, maximum, less exempt solvents 1.95 lb/gal, 234 g/L</p> <p>Volatile Organic Emissions as packaged, maximum .98 lb/gal, 118 g/L</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: Prime with Industrial Wash Primer, P60G2 or Kem Aqua Wash Primer, E61G520.</p> <p>Galvanized Steel: Prime with Industrial Wash Primer, P60G2 or Kem Aqua Wash Primer, E61G520.</p> <p>Plastic: Due to the diverse nature of plastic substrates, a coating or coating system must be tested for acceptable adhesion to the substrate prior to use in production. Reground and recycled plastics along with various fire retardants, flowing agents, mold release agents, and foaming/blowing agents will affect coating adhesion. If a primer is needed, test Kem Aqua Bonding Primer E61W525, Polane W₂ Primer E61AC514, or Kem Aqua 65P SprayFil. Please consult your Sherwin-Williams Chemical Coatings Sales Representative for system recommendations.</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. If a primer is needed, use Polane W₂ Primer, E61AC514.</p> <p>Wood (interior only): Must be clean, dry, and finish sanded. Substrate should be free of grease, oil, dirt, fingerprints, and any contamination to ensure optimum adhesion and coating performance properties. Prime with Kem Aqua 65P SprayFil, Sher-Wood 2400 Millwork Primer E60W501, or Polane W₂ Primer E61AC514.</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, compatibility and performance prior to full scale application.</p>

APPLICATION

Typical Set up

Water Reducible coatings should be applied at high viscosity. They atomize very easily at higher viscosity.

A texture finish is produced by a two coat application.

Base Coat: Spray full body. If needed, reduce up to 5% with water. Apply a full wet coat and allow to flash off for a minimum of 10 minutes.

Conventional Spray:

Air Pressure40-60 psi
Fluid Pressure10-12 psi
Tip Size055 - .070"

Texture Coat: Spray full body. If needed, reduce up to 5% with water. Spray the texture coat using a pressure pot with this equipment/settings:

Conventional Spray:

Air Pressure10-20 psi
Fluid Pressure5-12 psi
Tip Size055 - .070"

HVLP: Smooth Coat

Air Pressure 8-10 psi
Fluid Pressure6-12 psi
Tip Size055 - .070"
Reducer water
Reduction Rate 10-25%

Texture Coat

Air Pressure4-6 psi
Fluid Pressure6-10 psi
Tip Size055 - .070"
Reduction Rate 0-10%

Allow the texture coat to flash off for 15-20 minutes before baking.

The texture may be varied by adjusting the atomizing and fluid pressures until the desired texture size is obtained. Lower atomizing pressures give a larger texture pattern. Higher atomizing pressure reduces the texture size.

Cleanup:

This product dries hard and adheres tightly to tanks and equipment. Cleanup may be very difficult once material is fully dry. For best results, wash with water while coating is still wet. If the product has begun to dry, use a blend of 4 parts water, 1 part Butyl Cellosolve, and 1-2% household ammonia to clean up equipment and tanks. Use protective safety apparel (rubber gloves, chemical mask, and safety glasses) when handling this solution.

Follow manufacturer's safety recommendations when using any solvent.

SPECIFICATIONS

Product Limitations

- Avoid freezing. Store at temperatures of 50°F to 100°F.
- Keep container closed to prevent skinning of this fast dry coating. Filtering may be required.
- Product is thixotropic. Do not use viscosity cup to measure viscosity. Do not reduce over 10%.
- A minimum of 1.1 mils dry film per coat is required for good adhesion and film integrity.
- Addition of water will lower viscosity and may cause poor texturing.
- Some substrates may show lower pencil hardness with full cure. This may be due to adhesion, substrate profile, and substrate cleaning/pretreatment. Higher film thickness may also give lower pencil hardness.
- Kem Aqua colorants not to exceed 8 ounces per gallon.
- Gloss levels may be adjusted by using D64F505 Kem Aqua Flattening Base. Refer to data sheet CC-S13 for details.

Performance Tests

24 gauge Bonderite 1000 steel panels at 3.0 mils textured dft
Salt Spray Test
ASTM B11748-72 hours
Humidity
ASTM D2247, 100°F, 100% RH 100 hours
Pencil Hardness HB
Taber Abrasion
CS 17 wheel, 1000 g, 1000 cycles ... <100 mg
Freeze-Thaw Stability 2 cycles

Chemical Resistance

After ½ hour spot test and one hour recovery:
IsopropanolExcellent
10% NaOH Excellent
Ethyl Acetate Good
Ammonia Excellent
Ivory® Liquid Excellent
Clorox Formula 409® Excellent
MEK Good
Toluene Good
10% HCL Excellent
1 normal H₂SO₄ Excellent
5% Tide® solution Excellent

Stain Resistance

After ½ hour spot test:
Coffee Excellent
Vaseline® Excellent
Coca-Cola® Excellent
Catsup Excellent
Motor oil Excellent
Gasoline Excellent
Lipstick Excellent
MEK Resistance — 50 double rubs — passes

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.