



# General Industrial Coatings

CC-E12

## KEM AQUA® 600 Smooth Water Reducible Enamel

Black..... F73B530 Clear..... F73V531 Custom Blend Series ..... F73WX

### DESCRIPTION

**KEM AQUA® 600 Smooth Water Reducible Enamel** is a one component, low gloss, acrylic latex, water reducible coating developed for the electronic business machine market. This product can be used as a smooth coating on treated metal, structural foam plastic, and wood substrates to obtain very smooth, non-orange peel surfaces.

#### Advantages:

- Formulated to meet <2.3 lbs/gal, 275 g/L VOC\*, less exempts.
- Designed to meet the performance requirements of the electronic cabinetry industry
- Air dry or force dry - low energy cure
- Excellent solvent resistance
- Excellent smoothness - no orange peel
- One package system - no catalyst
- Reduce and clean up with water.\*\*  
Creates cost savings for solvent and insurance, reduced fire hazards, and improved working conditions
- Apply with conventional, airless, air assisted airless, or HVLP spray methods
- Available in a broad range of colors
- Ideal for a wide range of product finishing
- No flash point

\*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](http://www.PaintDocs.Com).

### CHARACTERISTICS

**60° Gloss:** 25-35 units

**Volume Solids** (varies by color): 37-40%

**Viscosity:** 61-67 KU

**Recommended Film Thickness:**  
Mils Wet 4.0-5.5  
Mils Dry 1.5-2.0

**Spreading Rate** (no application loss):  
300-430 ft.<sup>2</sup>/gal. at 1.5-2.0 mils DFT

**Cure:**  
Air Dry or Force Dry 30 minutes at 140° F

**Substrate Disclaimer:** Curing of coating at temperatures higher than the heat distortion parameters of the substrate may cause substrate issues.

**Drying:** 1.0 mils DFT at 77° F, 50% RH  
To Touch 5-15 minutes  
Tack Free 15-20 minutes  
To Handle 30-45 minutes  
To Pack Overnight  
Good air movement and humidity control is necessary for proper drying of water reducible coatings.

**Flash Point:** None  
Seta Flash Closed Cup

**Package Life:** 1 year, unopened

**pH:** 8.0-8.5

**Air Quality Data:**  
Non-photochemically Reactive  
Volatile Organic Compounds (VOC)  
Theoretical, as packaged, less exempts  
<2.3 lbs/gal, 275 g/L

### 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:** Prime with Kem Aqua Wash Primer E61G522.

**Galvanized Steel:** Prime with Kem Aqua Wash Primer E61G522.

**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 needed, prime with Kem Aqua Bonding Primer E61W525 or Polane® W2 Primer E61A516. If filling is required use Kem Aqua 65P SprayFil. Please consult your Sherwin-Williams Sales Representative for system recommendations.

**Steel:** 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 needed, prime with Polane W2 Primer E61A516. If filling is required use Kem Aqua 65P SprayFil.

**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 E61A516

**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

May require two coats. Spray a full wet coat and allow to flash off 10 minutes before applying the second coat

**Reduction:** Reduce with water as needed up to 10%. To ensure optimal coating performance and stability, it is recommended to use deionized water for reduction.

#### **Conventional Spray:**

Air Pressure	45-60 psi
Fluid Pressure	10-15 psi
Tip	0.040-0.070 in.

#### **Airless Spray:**

Fluid Pressure	1,600-2,300 psi
Tip	0.011-0.013 in.

#### **Air Assisted Airless Spray:**

Air Assist Pressure	5-15 psi
Fluid Pressure	600-800 psi
Tip	0.009-0.013 in.

#### **HVLP Spray:**

Air Pressure	8-10 psi
Fluid Pressure	10-15 psi
Tip	0.040-0.070 in.

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

#### **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.

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## ADDITIONAL INFORMATION

- 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.
- Do not apply with electrostatic bell or turbo disk.
- Not intended for long term exterior applications.
- The practical upper limit for gloss is 40-45 units. This range will require up to a 1:1 addition of F73V531. Kem Aqua 600 is not a high gloss coating.
- Gloss levels may be adjusted by using D64F505 Kem Aqua® Flattening Base. Refer to data sheet CC-S13 for details.
- Use Kem Aqua 600T White (F73W562) to blend or intermix colors.
- Do not add more than 8 ounces of Kem Aqua colorants per gallon of base.

#### **Performance Tests\***

Substrate:	24 gauge Bonderite® 1000 Steel panels, 1.5 mils DFT
Cure:	14 Days, Air Dry
Salt Spray Test ASTM B117	48-72 hours
Humidity ASTM D2247, 100° F, 100% RH	100 hours
Pencil Hardness	HB
Taber Abrasion CS 17 wheel, 1,000 g, 1,000 cycles	<100 mg
Freeze Thaw Stability	2 cycles
*Performance test results may vary depending on dry film thickness, substrate tested and post-cure duration.	

#### **Chemical Resistance**

After ½ hour spot test and 1 hour recovery	
Isopropanol	Excellent
10% NaOH	Excellent
Ethyl Acetate	Good
Ammonia	Excellent
Ivory Liquid	Excellent
Clorox Formula 409	Excellent
MEK	Good
Toluene	Good
10% HCl	Excellent
1 normal H <sub>2</sub> SO <sub>2</sub>	Excellent
5% Tide solution	Excellent
MEK Resistance 50 double rubs	Passes

#### **Stain Resistance**

After ½ hour spot test	
Coffee	Excellent
Vaseline	Excellent
Coca Cola	Excellent
Ketchup	Excellent
Motor Oil	Excellent
Gasoline	Excellent
Lipstick	Excellent

## 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](http://www.PaintDocs.Com).

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

#### **Note:**

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