



# General Industrial Coatings

CC-E23

## KEM AQUA® 1500T Waterborne Baking Enamel

Black..... F83B650 Gloss Clear..... F83V659  
Clear..... F83F660 White ..... F83W652 Custom Blend Series ..... F83JX

### DESCRIPTION

**KEM AQUA® 1500T Waterborne Baking Enamel** is a one component, water reducible, thermoset baking enamel for the electronic enclosure and general metal market. This product can be used as a smooth or texture coating.

#### Advantages:

- Formulated to meet 2.3 lbs./gal. VOC, less exempts
- High quality - meets the performance requirements for many of the electronic enclosures markets including business machines, medical equipment, consumer electronics, and telecommunications
- Excellent adhesion and mar resistance
- One package coating - no catalyst
- Monobake of basecoat and texture system
- Reduces with water\*\*, meaning considerable cost savings in solvents
- Water can be used for cleanup of spray guns and other equipment
- Can be applied directly to properly prepared steel surfaces

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

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

An Environmental Data Sheet is available from your local Sherwin-Williams facility or at [www.PaintDocs.Com](http://www.PaintDocs.Com).

### CHARACTERISTICS

(may vary by color)

**60° Gloss:**  
F83V659, Gloss Clear: 70 units  
All Others 20-30 units

**Volume Solids:** 30-35 ± 1 %

**Viscosity (Stormer):** 80-90 KU

**Recommended Film Thickness:**  
Mils Wet 3.0-4.0  
Mils Dry 1.0-1.25

**Spreading Rate** (no application loss):  
385-560 ft.<sup>2</sup>/gal. at 1-1.25 mils DFT

**Baking Schedule:** 30 mins. at 300° F  
20 mins. at 325° F

**Note:** Flash 15-20 minutes between smooth and texture coat. Good air movement helps water evaporation during flash-off.

**Flash Point** (Seta Flash Closed Cup): > 499° F

**Package Life:** 1 year, unopened

**Storage:** Store indoors,  
Protect from freezing

**pH:** 8.3-8.7

**Air Quality Data:**  
Non-photochemically reactive  
Volatile Organic Compounds (VOC), Less Exempts  
As Packaged ≤ 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 or Galvanized Steel:** For best results, treat the surface with a proprietary chrome phosphate metal treatment, or prime with 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

A textured finish is produced by two coat application. Recommended procedures must be followed to obtain the desired texture appearance.

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

**Basecoat/Smoothcoat:** Reduce 5-15% (vol.) with water. Spray a full wet coat (3.0-3.5 mils wet) and flash off for a minimum of 15 minutes.

**Texture:** Reduce 0-15% (vol.) with water. Spray the texture coat using pressure pot and equipment as follows:

Atomizing Pressure	10-20 psi
Fluid Pressure	10-30 psi

The texture may be varied by adjusting the atomizing and fluid pressure until the desired size is obtained. Lower atomizing pressure gives larger pattern. Higher atomizing pressure reduces texture size. Allow texture to flash off for 20-30 minutes before baking. For aluminum substrates allow a longer flash time.

### **Conventional Spray:**

Air Pressure	50-55 psi
Fluid Pressure	10-15 psi
Cap/Tip	704/FF

### **Electrostatic Spray:**

Atomizing Air	60 psi
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### **HVLP (DeVilbiss JGHV):**

Atomizing Air Pressure at the cap	9 psi
Fluid Pressure	10-15 psi
Cap/Tip	46MP/FF

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

### **Cleanup:**

Clean tools/equipment immediately after use with water, immediately followed by a dilute blend of water and ammonia as soon as possible. A blend of water and Butyl Cellosolve may also be used.

Follow manufacturer's safety recommendations when using any solvent.

## ADDITIONAL INFORMATION

1. Avoid freezing. Store at temperatures of 50° F minimum to 100° F maximum. Freezing will destroy the product quality.
2. Allow 15-20 minutes flash-off of base coat before applying texture coat.
3. Heavier gauge metal may require higher temperature and longer baking schedule.
4. Texture patterns dependent on equipment set up, viscosity and operator technique.
5. Do not use Gloss Clear F83V659 and Clear F83F660 by themselves. They are intended for blending and gloss adjustment only.
6. Compatible with Kem Aqua colorants. Do not add more than 12 ounces of colorant per gallon of base.

### **Performance Tests\***

Substrate: 24 gauge Bonderite® 1000 panels  
1.0 -1.25 mils DFT

Cure: 14 days Air Dry

Humidity Pass 288 hours  
(ASTM D2247, 100° F, 100% RH)

Pencil Hardness H minimum  
(ASTM D3363)

\*Pencil Hardness may vary depending on dry film thickness, substrate and tester.

MEK Resistance 100 double rubs  
Slight to no burnish

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

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## 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.

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