



SHERWIN WILLIAMS

# General Industrial Coatings

CC-B26

## KEM® 400 Enamel

Tinting White.....F75W420	Tinting Clear.....F75V421	Custom Blend.....F75KX Series
Gloss Black.....F75B401	Flat Black.....F75B412	Acrylic Modifier.....V70V411
High Hide White.....F75W404	Silver Metallic.....F75S491	KEM 400 Catalyst.....V66V1020
Blending Clear.....F75V405	Antimicrobial Blend.....F75KM Series	

### DESCRIPTION

**KEM® 400 Enamel** is a general purpose, short oil alkyd, high gloss enamel. It is ideal for interior and exterior application for OEM finishing or refinishing of industrial, construction, and agricultural equipment as well as a wide array of general metal applications.

#### KEM® 400 Acrylic Enamel

For improved exterior color and gloss retention, faster drying, sharper gloss, and improved block resistance in stacking, a 10% addition of Acrylic Modifier, V70V411, may be added to KEM® 400 Enamel.

#### KEM® 400 Urethane Enamel

For increased chemical and abrasion resistance, improved hardness, sharper gloss, and better gloss and color retention, KEM® 400 Enamel may be catalyzed at an 8:1 ratio with KEM® 400 Exterior Catalyst, V66V1020, prior to reduction. Drying times are slightly faster. Addition of catalyst eliminates the critical recoat time. Working potlife is 8 hours maximum, at room temperature. Catalyst contains isocyanates, read label cautions on V66V1020 before use.

#### KEM® 400 Antimicrobial Enamel Blends

contain an anti-microbial additive which protects the coating surface from microbial growth. Normal cleaning and surface maintenance practices should always be followed.

#### Advantages:

- High gloss
- Good exterior color and gloss retention
- Good one coat protection
- Fast air drying
- Good flexibility and film toughness
- Available in a broad range of colors
- Ideal for large components because of longer open time and wet-in of overspray
- Ideal system for horse trailers, farm, garden, and construction equipment and industrial machinery and equipment

### CHARACTERISTICS

**60° Gloss:** 85+

**Volume Solids:** 27-36 ± 2% (varies by color)

**Viscosity:** 50-60 secs., #2 Zahn Cup  
 40-50 secs., #4 Ford Cup  
 Blending Clear (F75V405) 82-90 KU  
 Tinting Clear (F75V421) 82-90 KU

#### Recommended Film Thickness:

Mils Wet 3.5-5.0  
 Mils Dry 1.0-1.5

**Spreading Rate** (no application loss):  
 290-580 ft.<sup>2</sup>/gal. at 1.0-1.5 mil DFT

**Drying:** (77° F, 50% RH)  
 To Touch 15-30 minutes  
 Tack Free 2-3 hours  
 To Handle 30-60 minutes  
 To Recoat before 3 hours and after 48 hours

Force Dry: 20 mins. @ 140-160° F

**A critical recoat time may occur between 3 and 48 hours at room temperature.** This may fluctuate depending on temperature, film thickness, and drying conditions. Test a small area first.

**Flash Point** 55-56° F  
 (Pensky Martens Closed Cup):

**Package Life:** 2 years, unopened

#### Air Quality Data (theoretical):

- Photochemically reactive
- Volatile Organic Compounds (VOC)
  - as packaged, maximum, less exempt solvents 5.02 lbs/gal, 601 g/L
  - reduced 15% with Xylene, R2K4 5.30 lbs/gal, 635 g/L

\* 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).

### SPECIFICATIONS

**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.

**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. For improved corrosion protection, priming is recommended. Prime with KEM® 400 Primer (E61A400) or KEM-Flash® Ultra-Bond™ Primer (E61A705 series).

**Aluminum** (untreated): prime with Industrial Wash Primer, P60G2, RoHS Compliant Wash Primer, P60G10, or Kem Aqua® Wash Primer, E61G522.

**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

**Reduction:** Reduce with Xylene, R2K4 as needed up to 15%. For more flow and open time, use Aromatic Naphtha 100 Flash or Aromatic Naphtha 150 Flash. Use Toluol for faster flash off and in cooler temperature.

**May be applied by:**

Conventional
Airless
Air Assisted Airless
HVLP
Dip

### **Conventional Spray:**

Air Pressure	45-55 psi
Fluid Pressure	10-15 psi
Tip	0.055-0.070"

### **Airless Spray:**

Fluid Pressure	1800-2400 psi
Tip	0.011-0.013"

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

Atomizing Air	10-20 psi
Fluid Pressure	1200-1800 psi
Tip	0.011-0.013"

### **HVLP:**

Air Pressure at the cap	10 psi
Fluid Pressure	8-10 psi
Tip	0.055-0.070"

**Cleanup:** Clean tools/equipment immediately after use with Aromatic Naphtha, Acetone, or Xylene, R2K4. For HAPS compliant cleanup, use n-butyl acetate, R6K18.

Follow manufacturer's safety recommendations when using any solvent.

## ADDITIONAL INFORMATION

1. For improved corrosion resistance, priming is recommended.
2. Blocking or sticking may occur when flat surfaces are stacked before adequate cure.
3. Over "pre-treated" aluminum, check adhesion before use, as the proprietary pre-treatment may change from supplier to supplier which may have an effect on the final adhesion.
4. Apply at temperatures above 60° F.
5. Apply at least 1.25 mils dry film thickness on direct to metal applications for good film integrity
6. Custom colors are available by blending bases Phoenix® colorants.
7. Gloss adjustments can be made using D64F100 or OK412.
8. Maximum Phoenix® colorant tint load is 8 ounces per gallon in the F75W420 and 16 ounces per gallon in the F75V421.

### **Performance Tests**

Substrate: 1.5 mils DFT on CRS Q-Panel.  
Air dry for 14 days.  
Salt Spray (ASTM B117) 150-200 hours  
Direct Impact Pass 10 pounds  
Pencil Hardness (ASTM D3363) 4B

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

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

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