



# General Industrial Coatings

CC-B28

## KEM® Fast Dry High Solids Enamel

Gloss Black.....	F85B30	Low Gloss White.....	F85W42	Mid-Gloss Clear Tint Base .....	F85V43C
Low Gloss Clear .....	F85V41	Gloss White .....	F85W32	Satin Clear Tint Base .....	F85V42C
Gloss Clear.....	F85V31	Gloss Clear Tint Base.....	F85V31C	Custom Blend Series .....	F85HX
				Custom Tint Series .....	F85HN

### DESCRIPTION

**KEM® Fast Dry High Solids Enamel** is a high quality high solids low VOC air dry alkyd 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.

#### Advantages:

- VOC\* as packaged is a maximum of 3.37 lbs/gal less exempt solvents
- High gloss products have excellent exterior color and gloss retention.
- Excellent one coat protection and performance
- Low application viscosity at high volume solids
- Can be reduced with exempt solvents such as Acetone for better application at 3.37 lbs/gal VOC
- Can be applied using many different spray application methods including conventional, HVLP, airless, air assisted airless and electrostatic
- Good flexibility and film toughness
- High production output by reducing multiple pass operations
- Available in a broad range of colors

\*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

(varies by color)

#### 60° Gloss:

High Gloss Blending Bases	85+
Low Gloss Blending Base	5-15
F85V31C (Gloss Clear Tint Base)	90+
F85V43C (Mid-Gloss Clear Tint Base)	55-65
F85V42C (Satin Clear Tint Base)	25-35

**Volume Solids:** 52 ± 2%

**Viscosity:** 40-90 secs., #4 Ford Cup

#### Recommended Film Thickness:

Mils Wet	2.0-2.5
Mils Dry	1.0-1.3

**Spreading Rate** (no application loss):  
620-870 ft.<sup>2</sup>/gal. at 1.0-1.3 mils DFT

#### Air Dry: (1.0-1.3 mils DFT, 77° F, 50% RH)

To Touch	15-60 minutes
To Handle	60-120 minutes
Tack Free	2-3 hours
To Recoat	before 6 hrs or after 48 hrs
Critical recoat period will fluctuate depending on drying conditions, film thickness, etc. Test a small area first.	
To Tape:	>24 hours

#### Force Dry: (120 -180° F)

To Handle	20-60 mins
To Tape	20-60 mins
Force dry is not recommended for low and intermediate gloss colors. See Product Limitations.	

**Package Life:** 1 year, unopened

**Flash Point** (Pensky Martens Closed Cup):  
10° F- 80° F

#### Air Quality Data:

- Photochemically reactive
- Volatile Organic Compounds (VOC) theoretical as packaged, maximum, less exempt solvents:  
3.37 lbs/gal, 404 g/L
- Reduced 3.5% by volume with MAK:  
3.5 lbs/gal, 420 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:** If untreated, prime with RoHS Compliant Wash Primer, P60G10 or Industrial Wash Primer, P60G2 or Kem Aqua® Wash Primer, E61G522. 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.

**Galvanized Steel:** Prime with RoHS Compliant Wash Primer, P60G10, or Industrial Wash Primer, P60G2 or Kem Aqua Wash Primer, E61G522.

**Steel or Iron:** Surface must be properly cleaned and free of rust, grease, dirt, fingerprints and other contaminants. Treatment may consist of a proprietary surface chemical treatment, such as zinc or iron phosphate and/or the application of Kem Flash® 500 Primer (E61A750 series) or Kem Flash Ultra-Bond™ Primer (E61A705 series) at 1.5 mil DFT. For best results on exterior exposure applications, a primer is recommended. See also Metal Preparation Brochure CC-T1.

**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:** Kem® Fast Dry HS Enamel may be applied without reduction at 3.37 lbs/gal VOC. For applications allowing 3.5 VOC, reduce 3.5% with R6K30 (MAK) for lower viscosity and easier application. For further ease of application and smoothest appearance, this product can be reduced further with exempt solvents such as R6K9 (acetone) to maintain 3.37 or 3.5 lbs/gal VOC. **When using acetone, reduce a maximum of 15% (vol.) and use the reduced material for a maximum of two weeks.**

For lower viscosity and easier application, coatings may be heated up to 120° F using heated trace lines.

### Conventional Spray:

Air Pressure 50-60 psi  
Reducer R6K30 (MAK)  
Reduction Rate as needed up to 3.5%

### Airless Spray:

Fluid Pressure 2,000-2,500 psi  
Tip 0.011-0.015 in.

### Air Assisted Airless Spray:

Air Assist Pressure 10-30 psi  
Fluid Pressure 800-2,000 psi  
Tip 0.011-0.015 in.

### Electrostatic Spray:

Reducer for polarity R6K30 (MAK)  
as needed

### HVLP Spray:

Air Pressure Max 10 psi at cap  
Fluid Pressure 8-10 psi  
Tip 0.055-0.070 in.  
Reducer R6K30 (MAK)  
Reduction Rate as needed up to 3.5%

### Cleanup:

Clean tools/equipment immediately after use with R6K10 (MEK) or R6K30 (MAK). For HAPS free cleanup use R6K18 (n-butyl acetate).

### Performance Tests\*

Substrate: 1.5 mils DFT on CRS Q-Panel,  
cured 7 days at room temperature, 50% RH  
Salt Spray Test (ASTM B117-90): 120-240 hours  
(varies by gloss)  
1/4" creepage, no blisters, no face rust  
Humidity (ASTM D2247): Pass 300 hours  
no rust, no blisters  
Pencil Hardness: 2B  
Impact Resistance, Direct: 50 in lbs  
Conical Mandrel, 1/8" Pass  
Adhesion: 4B minimum

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

Follow manufacturer's safety recommendations when using any solvent.

## ADDITIONAL INFORMATION

1. A critical recoat period may occur between 6 and 48 hours and will fluctuate, depending on drying conditions and film thickness. Test a small area first.
2. Drying time is dependent on film thickness and atmospheric conditions. Heavier film thickness causes slow drying. Use of a primer will also slow drying.
3. Not recommended for dip application.
4. For improved corrosion resistance, use of a primer is recommended.
5. Blocking or sticking will occur when flat surfaces are stacked before adequate cure.
6. For very large machines requiring extended time to spray, adding 1-2% Butyl Carbitol® will give a longer open time for overspray. Tack free time is longer.
7. Parts should be air dried overnight before outdoor exposure. Force drying is acceptable for full gloss colors, however, force drying a low or intermediate color may result in a higher than expected gloss.
8. Apply at temperatures above 60° F.
9. Apply at least 1.25 mils dry film on DTM applications for good film integrity.
10. The curing rate of this product is similar to traditional high solids air dry enamels. Caution should be taken for situations requiring fast handling and/ or packing.
11. The exterior gloss retention is proportional to the quantity of low gloss product used. The higher the quantity, the lower the gloss retention.
12. Custom color and gloss available by blending bases with GIS, Opticolor® Express and Phoenix® Colorants. **Do not exceed the maximum tint loads listed below:**

Base	Maximum Tint Load (Oz. Colorant/Gal. Base)
GIS, Opticolor XP & Phoenix Colorants	
Gloss Black, F85B30	16
Gloss Clear, F85V31	24
Low Gloss Clear, F85V41	24
Gloss White, F85W32	16
Low Gloss White, F85W42	16
Gloss Clear Tint Base, F85V31C	24
Satin Clear Tint Base, F85V42C	24
Mid-Gloss Clear Tint Base, F85V43C	24

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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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