



General Industrial Coatings

CC-B26

KEM® 400 Enamel

Gloss Black.....	F75B401	Tinting White.....	F75W420	Satin Clear Tint Base.....	F75V422C
Flat Black.....	F75B412	Silver Metallic.....	F75S491	Flat Clear Tint Base.....	F75FL400C
Blending Clear.....	F75V405	Acrylic Modifier.....	V70V411	KEM 400 Catalyst.....	V66V1020
Tinting Clear.....	F75V421	Clear Tint Base.....	F75V405C	Custom Blend Series.....	F75KX
High Hide White.....	F75W404	Mid-Gloss Clear Tint Base	F75V423C	Custom Tint Series.....	F75KN
				Antimicrobial Blend Series.....	F75KM

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

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

CHARACTERISTICS

60° Gloss:

Blending Bases	85+
F75V405C (Clear Tint Base)	90+
*F75V423C (Mid-Gloss Clear Tint Base)	55-65
*F75V422C (Satin Clear Tint Base)	25-35

*For Mid-Gloss and Satin coatings, they must only be air dried. If force-dried, the ultimate gloss will not meet the above ranges.

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.²/gal. at 1.0-1.5 mil DFT

Cure:

Air Dry or
*Force Dry: 20 mins. @ 140-160° F
*Do not force dry the Mid-Gloss or Satin coatings.

Air Drying: 1 mil at 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

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

An Environmental Data Sheet is available from your local Sherwin-Williams facility or at www.PaintDocs.Com.

Air Quality Data (theoretical):

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

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"

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

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. Gloss adjustments can be made using D64F100 or OK412.
7. Mid-Gloss and Satin coatings must be air dried, not force dried. If force dried, the ultimate gloss will not meet the above ranges.
8. Custom colors are available by blending bases with Opticolor® Express, Phoenix®, Color Express® or GIS colorants. Maximum colorant tint loads are shown in the table below:

	F75V405	F75V421	F75W404
Opticolor Express	32 oz/gal	-	28 oz/gal
Phoenix	32 oz/gal	16 oz/gal	8 oz/gal
Color Express	24 oz/gal	-	-
GIS	32 oz/gal	-	8 oz/gal

Performance Tests*

Substrate: 1.5 mils DFT on CRS Q-Panel.
Cure: 30 days, Air Dry

Direct Impact Pass 10 pounds
Pencil Hardness (ASTM D3363) 4B

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

All trademarks are the property of their respective owners.

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.

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

Note: All purchases of products from Sherwin-Williams are exclusively subject to Sherwin-Williams' [Standard Terms And Conditions Of Sale](#). Please review these terms and conditions prior to the purchase of the products.

Sherwin-Williams warrants the product to be free of manufacturing defect in accordance with Sherwin-Williams' quality control procedures. Except for the preceding sentence, due to factors that are outside of Sherwin-Williams' control, including substrate selection, and customer handling, preparation, and application, Sherwin-Williams cannot make any other warranties related to the product or the performance of the product. **SHERWIN-WILLIAMS DISCLAIMS ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

Liability for products proven to be defectively manufactured will be limited solely to replacement of the defective product or the refund of the purchase price paid for the defective product, as determined by Sherwin-Williams. Under no circumstances shall Sherwin-Williams be liable for indirect, special, incidental or consequential damages, lost profits or punitive damages arising from any cause whatsoever.