TECHNICAL INFORMATION

KEM AQUA® 300 FAST DRY GLOSS ENAMEL
GLOSS BLACK
F76BJ0502

CHEMICAL COATINGS

PRODUCT DESCRIPTION

KEM AQUA® 300 GLOSS ENAMEL is a fast drying high gloss water reducible enamel that is very low in emissions while providing the application flexibility, and paint film quality, of a conventional solvent based enamel.

Advantages

- Very low VOC - under 2.3 lbs./gal. less water.
- Volatile organic emissions are less than 1.0 lbs./gal.
- Very fast air dry - much faster than water reducible alkyds.
- Good exterior color and gloss retention
- A full color range is available by intermixing package colors.
- Free of lead and chromate hazards.
- Apply by conventional, airless, air-assisted airless or HVLP application equipment.
- Use water for reduction and clean-up.
- Package stability better than water reducible alkyds.
- Good mar resistance and film toughness.

CHARACTERISTICS

Gloss: Full 90° Minimum

Volume Solids: 34 - 36% depending On color

Package Viscosity: 35 to 40 sec. #3 Zahn

Spreading Rate: (varies by color) 560 sq. ft./gal. 1 mil dry. No application loss.

Package life: 2 years

Drying:
(Air dry at 77° F 50% R.H. at 1.0 mil DFT)

To Touch:	10-15 minutes
To Handle:	15-20 minutes
Tack Free:	30-40 minutes
To Recoat:	After 30 minutes
To Pack:	Overnight

Note: Water Reducible Finishes dry primarily by eater evaporation. Best drying occurs at relative humidity of 50% or lower and temperatures of 77° F (23°C) or higher. Good air movement is essential for proper dry.

Force Dry: 10-20 minutes at 140°-180°F.

Flash Point: 140° F Pensky-Martens closed cup

Air Quality Data:
Non-Photochemically reactive. Volatile Organic Compounds (VOC)-as packaged - 1.92 lb./gal. (230 gm./liter) less water. Volatile organic emissions are less than 1.0 lb/gal. Free of lead and chromate hazards as packaged.

Performance Tests:
The tests below were conducted on Q-Steel panels at 1 mil dry film after 21 days air dry. Each rated excellent or no failure.

1. Pencil Hardness	B to 2B
2. Crosshatch Adhesion	No Loss
3. Impact 20 lbs.	Pass
4. Moisture Resistance	Good
5. Flexibility 1/2" CM	Pass

CHARACTERISTICS, (continued)

Product limitations:

1. Higher humidity will increase dry time.
2. For exterior applications on steel use one of the following primers KEM AQUA® 300 Primer E61AJ501, or Polane W2 Primer E61AC514.
3. KEM AQUA® 300 has limited corrosion resistance on direct to metal applications.
4. Do not apply at temperatures below 50° F.
5. Use stainless steel spray equipment. Dip tank and storage containers should be lined steel or plastic.
6. Mix thoroughly prior to use. Avoid vigorous agitation which may cause bubbling or foaming.
7. Must not be exposed to freezing temperatures. Store inside.
8. Dries primarily by water evaporation. Drying is retarded by high humidity or cold conditions. Best drying occurs at relative humidity of 40% or lower & temperatures of 77° F. or above. Good air movement is essential for complete dry.
9. The customer is urged to pretest the system under shop conditions.
10. Excessive wet film thickness (>4.0 mils wet) may sag - spray thin coats.
11. Products must be air dried overnight with good air movement before stacking or packing. If heat is used for cure, allow surface to return to room temperature before stacking and evaluate results using your cure cycle before stacking.
12. Maximum dry film thickness of the system should not exceed 4.0 mils. Systems that exceed the recommended film build of 4.0 mils may exhibit cracking and crazing of finish as film ages.
13. Coatings must be applied at temperatures above 55° F. Application at lower temperatures may exhibit film cracking.

(CONTINUED ON BACK)

(CONTINUED FROM COLUMN 3)

SPECIFICATIONS

Surface Preparation:
Iron and Steel: Substrate must be free of dirt, grease, fingerprints, rust, and other contaminates. To insure good adhesion and improved coating performance properties a surface chemical treatment, such as Iron or Zinc phosphate and/or the application of a primer is recommended. Refer to Metal Preparation brochure CC-T1.

Primers:
Kem Aqua® 300 is not recommended direct to metal on exterior applications. A two coat system using one of the following primers is required on exterior applications. Polane® W2 Primer E61AC514 or Kem Aqua® 300 Fast Dry Primer E61AJ501.

Aluminum and Galvanized Steel (Untreated): Prime with Kem Aqua® Wash Primer E61G529 following data sheet instructions for use.

Wood - Interior: Apply directly to wood substrate or over a wood primer such as Sher-Wood® Millwork Pimer E60W501 or Sher-Wood® Primer Surfacer E60WJ500.

Application:
Recommended film thickness.

Wet	3.5-4.0 mils
Dry:	1.1-1.4 mils

May require multiple passes.

Conventional Spray:
Reduce 5-10% with water. For more flow and open time, use Aromatic Naphtha-150 Flash. Use 40-45 psi atomizing pressure and 5-10 psi fluid pressure.
Airless Spray:
No reduction needed. Use .011-.013 tip and 1700-2300 psi fluid pressure.
HVLP:
Reduce 5-10% with water. For more flow and open time, use Aromatic Naphtha -150 Flash, Use 70-80 psi atomizing air *Under 10psi nozzle pressure) and 6-10 psi fluid pressure with Binks MACH I or similar.
Air Assisted Airless:
Reduce 0-5% with water . Spray at 800-900 psi fluid pressure and 25-35 psi atomizing pressure with an .011 finish tip.

SPECIFICATIONS, (continued)

NOTE:
Water reducible enamels generally are applied at higher viscosity's than solvent based enamels. They do apply and atomize easily at higher viscosity's.
Clean-up:
Use water when paint is wet. When dry, use a 1:1 blend of water and MEK following supplier's recommendations.

CAUTIONS

HARMFUL IF INHALED - MAY EFFECT THE BRAIN OR NERVOUS SYSTEM, CAUSING DIZZINESS, HEADACHE OR NAUSEAU. IRRITATES EYES, SKIN AND RESPIRATORY TRACT. CAN BE ABSORBED THROUGH THE SKIN, MAY CAUSE BLOOD DAMAGE.

Contents are **NON-COMBUSTIBLE-VAPOR HARMFUL.** Use only with adequate ventilation. Wear an appropriate, properly fitted vapor/particulate respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable levels.
Follow respirator manufacturer's directions for respirator use. Avoid contact with skin and eyes. Can be absorbed through skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

CONTAINS ETHYLENE GLYCOL MONOBUTYL ETHER AND 2-BUTOXY ETHOXY ETHANOL

FIRST AID:
IF INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.
IF ON SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing. Launder before re-use.
IF IN EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.
IF SWALLOWED: Get medical attention immediately.

SPILL AND WASTE:
Remove all sources of ignition. Ventilate and remove with inert absorbent. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State and Local regulation regarding pollution.

CAUTIONS, (continued)

Delayed Effect From Long Term Overexposure: Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

DO NOT TAKE INTERNALLY
KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

Refer to Material Safety Data Sheet for further information.

NOTE:
Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating and opinions stated above pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application which are not known or not under our control, The Sherwin-Williams® Company cannot make any warranties or guarantees as to the end result.

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