



**SHERWIN  
WILLIAMS.**

# Chemical Coatings

CC-F41

## SHER-WOOD® KEM AQUA® Lacquer

Gloss ..... T75C525  
Bright Rubbed Effect ..... T75F526  
Medium Rubbed Effect ..... T75F527  
Dull Rubbed Effect ..... T75F528

<u>DESCRIPTION</u>	<u>CHARACTERISTICS</u>	<u>SPECIFICATIONS</u>
<p><b>SHER-WOOD® KEM AQUA® Lacquer</b> is a high quality, water reducible, acrylic latex, clear system for finishing furniture, cabinets and a wide variety of wood and novelty items without the hazards associated with nitrocellulose lacquer and highly flammable solvents. It offers improved clarity and ease of handling over other latex coatings and meets all current EPA regulations for volatile organic compounds emissions for wood finishing.</p> <p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>• Meets KCMA specifications</li> <li>• Very low VOC under 2.0 lb/gal less water</li> <li>• Very low volatile organic emissions - less than 1.0 lb/gal</li> <li>• Excellent film clarity - like solvent based nitrocellulose lacquers</li> <li>• Meets the Federal HAPS rule for Wood Finishes as packaged*</li> <li>• Complete water system that handles and performs much like a lacquer</li> <li>• Excellent mar resistance</li> <li>• Better resistance to microfoaming than other latex clears</li> <li>• Minimizes tannin bleed discoloration when used with Sher-Wood® Kem Aqua® Lacquer Sanding Sealer T65F520</li> <li>• Dries to handle and sand in 30 minutes at room temperature</li> <li>• Very good hardness, block resistance, and print resistance</li> <li>• Offers greater safety to the user because it does not contain the volatile flammable organic solvents typical of lacquers</li> <li>• Contains water. Reduced with water</li> <li>• Excellent resistance to blushing</li> <li>• No flash point</li> </ul> <p>*National Standards for Hazardous Air Pollutants (HAPS) Emissions for Wood Furniture Manufacturing Operations, CFR 40, Part 63, Subpart JJ</p>	<p><b>Color:</b> wet milky dry clear</p> <p><b>Gloss (measured on black glass):</b> Gloss 80+ units BRE 55-60 units MRE 38-42 units DRE 17-21</p> <p><b>Weight Solids:</b> 32 ± 2% <b>Volume Solids:</b> 26.5 ± 1%</p> <p><b>Viscosity:</b> 28-32 seconds #2 Zahn Cup</p> <p><b>Recommended film thickness:</b> Mils Wet 3.0 - 4.0 Mils Dry 0.8 - 1.1</p> <p><b>Spreading Rate</b> (no application loss) @ 0.8-1.1 mil dft: 386-531 sq ft/gal</p> <p><b>Drying</b> (77°F, 50% RH): To Touch: 15 minutes To Handle: 20-30 minutes To Sand: 30 minutes To Recoat: 30 minutes To Pack: overnight To Rub: 4 hours Force Dry: 10-20 minutes at 120°F</p> <p>This product dries primarily by water evaporation. Best drying occurs at 50% RH or lower and temperatures of 77°F or higher. Good air movement is essential for complete drying.</p> <p><b>Force drying:</b> When humid shop conditions exist, the required lower relative humidity is achieved only by raising the temperature 10° to 30°F and ventilating out the excess moisture.</p> <p><b>Flash Point:</b> none, Seta Flash Closed Cup</p> <p><b>Package Life:</b> 1 year, unopened <b>pH:</b> 8.5-9.0</p> <p><b>Air Quality Data:</b> Non-photochemically reactive Volatile Organic Compounds (VOC) as packaged, maximum, less water 2.0 lb/gal, 240 g/L Volatile Organic Emissions as packaged, maximum 1.0 lb/gal, 120 g/L Hazardous Air Pollutants (HAPS) as packaged, maximum less than 0.8 lbs per pound of solids</p>	<p><b>Wood</b> (interior only): Must be clean, dry, and finish sanded. Substrate should be free of grease, oil, dirt, fingerprints, and any contamination to ensure optimum adhesion and coating performance properties. Moisture content of wood should be 6 to 8%.</p> <p><b>Testing:</b> Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion and compatibility prior to full scale application.</p> <p><b>Wood Finishing System:</b></p> <ol style="list-style-type: none"> <li>1. Stain—apply Sher-Wood® Water Reducible Stain and allow to dry.</li> <li>2. Seal—apply Sher-Wood® Kem Aqua® Lacquer Sanding Sealer T65F520 at 3.0-4.0 mils wet. Air dry with good air movement. Sand with 220 grit paper and remove all sanding dust.</li> <li>3. Topcoat—apply topcoat at 3.0-4.0 mils wet. Dry with good air movement. Apply an additional topcoat for greater build and fill depth. Allow 30 minutes drying between coats.</li> <li>4. Dry—Allow overnight drying before packing and 4 hours before rubbing.</li> </ol> <p>Maximum of 4.0 mils dry film thickness of the system</p> <p>To make toners and shading lacquers, add up to 4 oz/gal of Sher-Wood® Water Reducible Wiping Stain Concentrates, Sher-Wood® Universal Dye Concentrates, Hüls 896 or UCDQ water borne shading bases.</p> <p><b>NOTE: Kem Aqua Lacquer and Kem Aqua Lacquer Sealer should not be mixed together as a liquid. They are not compatible and will turn orange.</b></p>
<p>An Environmental Data Sheet is available from your local Sherwin-Williams facility.</p>		

## APPLICATION

### Typical Setups

**Reduction:** Apply at full body. If needed, reduce with water up to 5%. For warm temperatures or more flow and leveling add Butyl Carbitol, R6K28, or Butyl Cellosolve, R6K25. Premix solvents two parts water to one part solvent. Add up to 3% by volume. These solvents will slow the dry and will not lower the viscosity.

To improve air release add 3-5% Isopropyl Alcohol, R6K20, or Ethanol, R6K21. May be applied at temperatures up to 110°F.

### **Conventional Spray:**

Air Pressure ..... 45-50 psi

Fluid Pressure ..... 5-10 psi

### **Airless Spray:**

Pressure ..... 2200-2600 psi

Tip ..... .011"

### **Air Assisted Airless:**

Air Pressure ..... 12-15 psi

Fluid Pressure ..... 700-800 psi

Cap/Tip ..... .011"

Reducer ..... water

Reduction Rate ..... as needed up to 5%  
20-23 seconds #2 Zahn Cup

### **HVLP: Binks Mach I**

Air Pressure ..... 4-10 psi

Fluid Pressure ..... 5-10 psi

Cap/Tip ..... 97P/94

### **Dip:**

Excessive agitation or turbulence on part immersion or withdrawal may cause foaming.

### **Electrostatic:**

If electrostatic application is desired, contact your Sherwin-Williams representative for recommendation.

Some applications and equipment setups, especially air assisted airless and airless, may be prone to microfoaming of the wet film which will give lower gloss and clarity. Do not use higher pressures than needed for atomization.

### **Cleanup:**

Clean tools/equipment immediately after use with water.

After cleaning, flush equipment completely with water, followed by flushing with 2 parts water and 1 part Diacetone Alcohol, R6K24.

Follow manufacturer's safety recommendations when using any solvent.

## SPECIFICATIONS

### **Product Limitations:**

- Complete water based system is recommended - stain, sealer and topcoat. Solvent based Sher-Wood® Wiping Stain is compatible and may be used.
- For interior use only
- Use stainless steel spray equipment. Tank, piping, and containers should be lined steel or plastic.
- Mix thoroughly prior to use. Avoid vigorous agitation which may cause bubbling or foaming.
- Do not expose to freezing temperatures.
- Excessive wet film thicknesses (>4.0 mils wet) may sag - spray thin film.
- Very low humidity may cause mud-cracking and poor film properties.
- When finishing Redwood, Red or White Oak, Pine and Cedar Wood with water based finishes, tannins may be extracted from the wood by the water and cause staining and/or discoloration of the stain, sealer, and/or topcoat. This tannin bleed is most evident with white or pickled stains and clear topcoats. Users are urged to thoroughly test the system under shop conditions.
- Natural Finished Woods (unstained) will change color on aging and exposure to light. This is a natural phenomenon. Clear finishes will not prevent the wood from changing color.
- Products must be air dried at least overnight with good air movement before stacking or packing.
- This product, and other water reducible clears, may yield a slightly different color over dye stains than solvent based clears.
- Sher-Wood® Kem Aqua® Lacquer is not recommended for use over light pastel and white colors as a "water white" clear coat due to an inherent yellow cast appearance.
- Sher-Wood® Kem Aqua® Lacquer as a self sealing system is more susceptible to yellowing and tannin bleed discoloration. Sher-Wood® Kem Aqua® Lacquer Sanding Sealer T65F520 is the recommended sealer. Contact your local Sherwin-Williams representative for details.
- To maintain HAPS compliance only reduce with HAPS compliant reducers.
- May be tinted with up to 4 ounces of Kem Aqua® Colorant per gallon.

### **Performance Tests:**

Freeze Thaw ..... Passes 4 cycles

Cold Check ..... Passes 20 cycles

## CAUTIONS

Thoroughly review product label for safety and cautions prior to using this product.

A Material Safety Data Sheet is available from your local Sherwin-Williams facility.

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

### LABEL CAUTIONS

SEE CONTENTS STATEMENT ON LABEL.

Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area.

Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. FIRST AID: In case of eye contact, flush thoroughly with large amounts of water. Get medical attention if irritation persists. If swallowed, call Poison Control Center, hospital emergency room, or physician 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.

DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.

FOR INDUSTRIAL USE ONLY. SEE MATERIAL SAFETY DATA SHEET.

19511-100402.

**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 here 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 under our control, The Sherwin-Williams Company cannot make any warranties as to the end result.