SHER-WOOD® Kem Aqua® Plus Clear

DESCRIPTION

SHER-WOOD® KEM AQUA® Plus Clear is a high quality, water reducible, self-seal clear for finishing furniture, cabinets and a wide variety of wood and novelty items. It contains a UV absorber to significantly reduce natural wood discoloration due to sunlight.

Advantages:
- Contains UV absorber to reduce discoloration of natural wood from exposure to sunlight.
- Excellent film clarity
- Minimizes tannin bleed even as a self-seal system
- VOC as packaged <2.3 lbs/gal, 275 g/L
- Dried film is very light in color which makes it suitable for finishing over natural wood or pastel stain colors
- Meets test requirements of the KCMA self-sealed and over Sher-Wood Kem Aqua Plus Waterborne Sealer, and Sher-Wood Kem Aqua Lacquer Sanding Sealer
- Excellent mar resistance
- Better resistance to microfoaming than other latex clears
- Excellent hardness, block resistance and print resistance
- Good flow and leveling
- Good flexibility - passes 20 KCMA cold check cycles
- Excellent resistance to blushing
- Reduces with water**

Gloss (measured on black glass):
- Gloss 85+ units
- BRE 55-59 units
- MRE 34-38 units
- DRE 17-21

Volume Solids: 29 ± 1%
Viscosity: 28-32 seconds #2 Zahn Cup

Recommended film thickness:
- Mils Wet 3.0 - 4.0
- Mils Dry 0.8 - 1.3

Spreading Rate (no application loss): 345-600 sq ft/gal @ 0.8-1.3 mils DFT

Drying (77°F, 50% RH):
- To Touch: 15 minutes
- To Handle: 20 minutes
- To Sand: 20-25 minutes
- To Recoat: 30 minutes
- To Pack: 8 - 12 hours
- To Rub: 24 hours, or 2 hours at 140°F
- Force Dry: 30 minutes at 120°F, then air dry 4 hours to pack

Force drying: 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. 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.

Flash Point: None

Package Life: 1 year, unopened, inside storage, keep from freezing

Air Quality Data:
- Non-photochemically reactive
- Volatile Organic Compounds (VOC) Theoretical as packaged, less water and exempt solvents <2.3 lb/gal, 275 g/L
- Volatile Hazardous Air Pollutants (VHAPS) as packaged, no reportable VHAPS

NOTE: Do not use Kem Aqua Plus Clear over Kem Aqua Primer or Kem Aqua Pigmented Lacquer. These systems are not compatible and will discolor.

SPECIFICATIONS

Wood (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%.

Wood Finishing System:
1. Stain—apply Sher-Wood Water Reducible Stain (S64H501 series) and allow to dry.
3. Topcoat—apply topcoat at 3.0-4.0 mils wet. Dry with good air movement. Apply an additional topcoat for greater build. Allow 30 minutes drying between coats.
4. Dry—allow overnight drying before packing and 24 hours before rubbing.
5. Maximum dry film thickness of the system must not exceed 4 mils dry. To make toners and shading lacquers, add up to 4 oz/gal of Kem Aqua Colorants, ColorCast Ecotoner or Blend-a-Color (BAC) colorants.

An Environmental Data Sheet is available from your local Sherwin-Williams facility.
### Application

**Typical Setups**

**Reduction:** Apply at full body. If needed to optimize application, reduce with water up to 2% by volume. To ensure optimal performance and stability it is recommended to use deionized water for reduction. To improve flow and air release, add Dipropylene Glycol Monomethyl Ether (DPM), PM Reducer, R6K34, or 2-Butoxyethanol, R6K25, not to exceed 2% by volume.

**Conventional Spray:**
- **Air Pressure:** 45-55 psi
- **Fluid Pressure:** 5-10 psi
- **Needle/Tip:** .046-.055"

**Airless Spray:**
- **Pressure:** 1500-1900 psi
- **Tip:** .011"

**Air Assisted Airless:**
- **Air Pressure:** 15-20 psi
- **Fluid Pressure:** 450-850 psi
- **Tip:** .011-.013"
- **Reducer:** water

**Dip:**
- Excessive agitation or turbulence on part immersion or withdrawal may cause foaming.

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:**
- After cleaning, flush equipment completely with water, followed by flushing with 2 parts water and 1 part 2-Butoxyethanol R6K25 to remove water residue and to prevent rusting.
- Follow manufacturer's safety recommendations when using any solvent.

### Additional Information

- Not recommended for exterior use.
- Use stainless steel spray equipment.
- Tank, piping, and containers should be lined steel or equivalent.
- Mix thoroughly prior to use. Avoid vigorous agitation which may cause bubbling or foaming.
- **Do not expose to freezing temperatures.** The liquid coating will not handle any freeze/thaw cycles.
- Pretest the system under shop conditions.
- Excessive wet film thicknesses (>4.0 mils wet) may sag.
- Very low humidity may cause mudcracking 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.
- May be tinted with up to 4 ounces of Kem Aqua Colorants, ColorCast Ecotone® or Blend-a-Colors® (BAC) Colorants per gallon.

**Performance Tests:**
- Cold Check: Pass - 20 cycles
- Bell Adhesion Test: Pass
- Nickel Adhesion Test: Pass
-Print Resistance (4psi/18 hours) .... No Print
- 24-hour Detergent & Water Edge Soak: Pass

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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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