SHERWIN WILLIAMS

# *Product Finishes*

CC-F62

# SHER-WOOD® KEM AQUA® *Plus* CLEAR

Gloss .....T75C555
Bright Rubbed Effect .....T75F556
Medium Rubbed Effect.....T75F557
Dull Rubbed Effect .....T75F558
Custom Blend……T75PX Series

## 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**

*VOC compliance limits vary from state to state; please consult local Air Quality rules and regulations.
**To ensure optimal coating performance and stability, it is recommended to use deionized water for reduction.

## CHARACTERISTICS

**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

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

## 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 and allow to dry.
2. Seal—apply Sher-Wood Kem Aqua-Plus, Sher-Wood Kem Aqua Plus Waterborne Sealer (T65F550) or Sher-Wood Kem Aqua Lacquer Sanding Sealer (T65F520) at 2.0-3.0 mils wet. Air dry with good air movement. Sand with 220 grit paper and remove all sanding dust.
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.

**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.**

**Testing:** Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion, compatibility and performance prior to full scale application.


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## 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 Butyl Cellosolve, 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
Reduction Rate..... as needed up to 2%
**HVLP:**
Air Pressure at Cap ..... 6-8 psi
Fluid Pressure ..... 4-8 psi
Needle/Tip ..... .046-.055"
**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 Butyl Cellosolve to remove water residue and to prevent rusting.

## ADDITIONAL INFORMATION

- Not recommended for exterior use.
- 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. 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 Ecotoner® or Blend-a-Color® (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

## CAUTIONS

**FOR INDUSTRIAL SHOP APPLICATION**

Thoroughly review product label and Material Safety Data Sheet (MSDS) 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.

**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.