### DESCRIPTION

**SHER-WOOD® KemVar® LF Water White Conversion Varnish** is a low formaldehyde, HAPS Free, water white conversion varnish for coating interior wood products. Water White LF is a pale, clear, catalyzed coating material for finishing natural woods, pickled finishes, and other applications requiring good resistance to discoloration and yellowing. Water White LF offers superior performance properties for kitchen cabinetry, office and institution furniture, and other finished products requiring the benefits of a premium catalyzed coating system.

**Advantages:**
- Water white formulation containing UV Absorber for enhanced non-yellowing properties
- HAPS Free as packaged (as defined by the National Standards for Hazardous Air Pollutants [HAPS] Emissions for Wood Furniture Manufacturing Operations 40 CFR 63, Subpart JJ)
- Meets the test requirements of the Kitchen Cabinet Manufacturers Association (KCMA)
- Use as a multicoat, self-seal system or over recommended Sher-Wood catalyzed vinyl sealer
- High build and good vertical hang characteristics
- Production line drying characteristics for faster dry-to-sand times and early hardness development
- Good moisture, household chemical and cold check resistance

### CHARACTERISTICS

<table>
<thead>
<tr>
<th>Gloss Levels:</th>
<th>BRE - 55-59 units</th>
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<tbody>
<tr>
<td></td>
<td>MRE - 34-38 units</td>
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<tr>
<td></td>
<td>Flat - 3-8 units</td>
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<tr>
<td>Volume Solids:</td>
<td>29 ± 1%</td>
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<tr>
<td>Viscosity @ 77°F:</td>
<td>24-28 seconds #2</td>
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<tr>
<td>Zahn Cup</td>
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<tr>
<td>Recommended film thickness per coat:</td>
<td>Mils Wet - 3.0-5.0 Mils Dry - 0.8-1.4</td>
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<tr>
<td>Spreading Rate (no application loss) @ 1.0 mil dft:</td>
<td>465 sq ft/gal</td>
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<tr>
<td>Drying (77°F, 50% RH):</td>
<td>To Touch: 10-15 minutes</td>
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<td></td>
<td>To Handle: 20-30 minutes</td>
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<td></td>
<td>To Sand: 20-45 minutes</td>
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<td>To Recoat: 30-45 minutes</td>
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<td></td>
<td>To Rub: 8 hours</td>
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<td></td>
<td>To Pack: 8 hours</td>
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<tr>
<td>Force Drying:</td>
<td>Flash: 10 minutes</td>
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<tr>
<td></td>
<td>Bake: 15 minutes @125°F</td>
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<tr>
<td>Mixing Ratio:</td>
<td>1 Gal KemVar LF Varnish</td>
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<tr>
<td></td>
<td>4 oz. V66V21 catalyst</td>
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<tr>
<td>Pot Life:</td>
<td>24 hours</td>
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<tr>
<td>Package Life:</td>
<td>24 months, unopened</td>
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</tbody>
</table>

### 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.

**Finishing System:**
1. Color Wood - Stain or tone as desired and dry thoroughly.
2. Seal - Apply KemVar LF as a sealer or use vinyl sealers (catalyzed): T67F3, T67F5, T67F6 or T67F7. These sealers must be catalyzed when used under Sher-Wood catalyzed topcoats. Consult the corresponding sealer data page for details.
3. Air dry 30 minutes, sand seal coat with 240 grit or equivalent, remove sanding dust.
4. Topcoat - Apply KemVar LF at 3.0 - 5.0 mils wet.
5. For more depth or build apply an additional coat. Do not exceed 4.0 mils dft for the total system.

**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.

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

### Typical Setups

**Conventional Spray:**
- Air Pressure: 40-50 psi
- Fluid Pressure: 6-8 psi

**Airless Spray:**
- Pressure: 1200-1800 psi
- Tip: 0.011-0.015"*

**Air Assisted Airless:**
- Assist Air Pressure: 10-25 psi
- Fluid Pressure: 400-800 psi
- Cap/Tip: 0.011-0.015"*

**HVLP:**
- Air Pressure: 4-9 psi
- Fluid Pressure: 10-12 psi

**Cleanup:**
- Clean tools/equipment immediately after use with R7K305, Lacquer Thinner R7K320 or Butyl Acetate R6K18.

### Reducing Options
- Reduce 5-20% with listed solvents to adjust drying and or build.
- R6K9: Acetone
- R6K18: Butyl Acetate
- R7K305: Lacquer Thinner

### Retarding Options
- Retard 5-10% with listed solvents.
- R6K30: MAK
- R6K35: EEP

## Specifications

### Performance Tests:
- **Cold Check Resistance:** 20 cycles
- **Print Resistance:** No print
- **Edge Soak Test:** No film failure
- **Household Chemicals Test:**
  - **Ammonia:** No visual effect
  - **Vinegar:** No visual effect
  - **Lemon Juice:** No visual effect
  - **Ethyl Alcohol:** No visual effect
  - **Mercurochrome 2%:** No visual effect
  - **Red Ink:** No visual effect
  - **Blue Ink:** No visual effect
  - **Mustard:** Very slight stain
  - **Oil Base Paint:** No visual effect
  - **Latex Emulsion Paint:** No visual effect
  - **VM&P Naphtha:** No visual effect
  - **Turpentine:** No visual effect
  - **Orange Crayon:** No visual effect
  - **Mayonnaise:** No visual effect
  - **Sour Milk:** No visual effect
  - **Margarine:** No visual effect
  - **Butter:** No visual effect
  - **Water:** No visual effect
  - **Cooking fat:** No visual effect

### Product Limitations:
- Sher-Wood KemVar LF Varnish must be catalyzed 4 ounces per gallon with Sher-Wood KemVar Catalyst V66V21. Do not over catalyze. Do not use any other catalyst.
- KemVar Catalyst V66V21 is an acid. To prevent acid corrosion and pitting, all equipment should be made of stainless steel. Containers and piping should be stainless steel or plastic.
- For interior use only.
- To extend the pot life at the end of the day, add 100% of uncatalyzed material. The next day, add catalyst based only on the uncatalyzed portion when ready to use.
- Temperature must be above 70°F during application and cure to ensure acceptable coating properties. Coatings cured at lower temperatures are prone to cracking, checking and brittleness.
- Non-yellowing is relative, not absolute terminology. This quality formulation provides UV resistance superior to most standard type nitrocellulose containing precatalyzed lacquers, CAB Acrylic lacquers and Water White varnishes that do not contain UV absorbers.
- To achieve optimum film properties a minimum of 2.0 mils DFT is required.
- Maximum dry film thickness must not exceed 4.0 mils, heavier films may crack.
- If a repair coat is necessary, further reduce the material to keep the total DFT at 4.0 mils or less.

### 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.

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