



## Chemical Coatings

# SHER-WOOD® Compliant Water White Conversion Varnish V84FL20

### DESCRIPTION

**SHER-WOOD® Compliant Water White Conversion Varnish** is a low HAPS/VOC complying catalyzed wood finishing system providing water white color and excellent non-yellowing properties. It is recommended for use over white "pickled" and light color stains where non-yellowing is required. Water White Conversion Varnish offers superior performance properties for institutional and office furniture, cabinets and interior wood products.

#### **Advantages:**

- Water white color
- Excellent resistance to yellowing
- Meets the Federal HAPS standard for wood finishes\*
- Meets the Federal Control Technique Guidelines (CTG) for VOC for conversion varnishes
- High build - 34% volume solids
- Fast drying
- Meets the test requirements of the Kitchen Cabinet Manufacturers' Association (KCMA)
- Self sealing - use the same product as a sealer
- Will not blush like lacquer products.
- Process efficient - many three-coat applications can be done in two coats because of its high solids and high build
- Versatile - may be applied by conventional, airless, air assisted airless or electrostatic spray
- Good "hang" on vertical surfaces
- Excellent toughness and mar resistance
- Excellent moisture resistance
- Excellent resistance to household chemicals
- Excellent cold check resistance
- Ideal for kitchen cabinets, vanities, chairs, office furniture, and a wide range of interior wood products

\*National Standards for Hazardous Emissions for Wood Furniture Manufacturing Operations, CFR 40, Part 63, Subpart JJ.

### CHARACTERISTICS

**Gloss:** DRE (14-18 units)  
**Volume Solids:** 33.6 ± 1%  
**Weight Solids:** 42.7 ± 2%  
**Viscosity:** 17-22 seconds #2 Zahn  
Cup or 14-18 seconds #4 Ford

#### **Recommended film thickness:**

As a Sealer: As a Topcoat:(per coat)  
Wet: 2.0-3.0 mils Wet: 2.5-4.0 mils  
Dry: 0.6-0.9 mils Dry: 0.8-1.2 mils

**Maximum Dry Film:** 5 mils

**Spreading Rate** (no application loss)

@ 1 mil dft: 545 sq ft/gal

**Drying** (77°F, 50% RH):

To Touch: 10-15 minutes

To Handle: 15-30 minutes

To Sand or Recoat: 30-60 minutes

To Pack or Stack: 24 hours

Force Dry: 5-20 min. at 110-160°F

**NOTE:** Coating must be applied and dried at a temperature of 70°F or higher to insure acceptable coating properties. See Product Limitations.

**Flash Point:** 50°F Pensky-Martens  
Closed Cup

**Pot Life:** 24 hours @ 77°F after  
catalyzation

**Package Life:** 1 year, unopened

#### **Air Quality Data:**

Non-photochemically reactive

Volatile Organic Compounds (VOC)

as packaged, maximum

<4.6 lb/gal, 550 g/L

catalyzed 3% with V66V21 (no reduction)

<4.6 lb/gal, 550 g/L

catalyzed 3% with V66V21 and reduced

15% with Butyl Acetate

4.95 lb/gal, 594 g/L

VOC (actual): Catalyzed and reduced 15%

with Butyl Acetate R6K18 as a sealer

<2.3 lb. per pound of solids.

Catalyzed and reduced 5% with Butyl Acetate  
as a topcoat

<2.0 lb. per pound of solids.

Hazardous Air Pollutants (HAPS)

As catalyzed and reduced with Butyl Acetate

less than 0.8 lb. per pound of solids

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

### SPECIFICATIONS

**Wood:** Must be clean, dry, finish sanded  
and dust free.

#### **Catalyzation and Reduction:**

**As a Sealer:** Catalyze with 3% SHERWOOD  
KEMVAR Catalyst V66V21 by volume  
(3.8 ounces catalyst per gallon varnish).

Then reduce up to 15% with Butyl  
Acetate R6K18.

**As A Topcoat:** Catalyze with 3%  
SHERWOOD

KEMVAR Catalyst V66V21 by volume  
(3.8 ounces catalyst per gallon of  
varnish). Reduce up to 5% with Butyl  
Acetate R6K18.

#### **Finishing System:**

1. Sealer - Self seal or use SHER-WOOD  
Vinyl Sealer T67F3 or High Solids Vinyl  
Sealer T67F5 (see Data Sheets for  
catalyzation of Vinyl Sealer). Spray a  
full wet coat. Air dry 30 minutes or force  
dry 5-20 minutes at 110-160 F.
2. Sand with 220-280 grit paper and remove  
sanding dust.
3. Topcoat - Catalyze and reduce as a  
topcoat. Spray a full wet coat. For more  
depth, apply a second topcoat. Allow  
to air dry overnight before packing or  
stacking. Force drying may be used.
4. Maximum dry film thickness of the system  
must not exceed 5 mils dry film.

**NOTE:** For Non-HAPS application, aromatic  
solvents such as xylene or Aromatic  
Naphtha 100 Flash may be used.  
Up to 5% reduction may be used to maintain  
VOC of less than 2.0 lb. per pound  
of solids.

**Testing:** 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.

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## APPLICATION

### Typical Setups

#### May be applied by:

Conventional Spray  
Airless Spray  
Air Assisted Airless  
Electrostatic  
HVLP

#### Conventional Spray:

Air Pressure .....40-50 psi  
Fluid Pressure ..... 6-8 psi

#### Airless Spray:

Pressure ..... 1200-1800 psi  
Tip .....011-.013"

#### Air Assisted Airless:

Fluid Pressure ..... 800-900 psi  
Tip ..... .011-.013

#### Electrostatic Spray:

Substrate must be conductive

#### HVLP:

Air Pressure ..... 4-9 psi  
Fluid Pressure .....10-12 psi

#### Cleanup:

Use xylene or toluene or butyl acetate.  
Follow suppliers's safety recommendations  
when using any solvent.

#### Performance Tests:

Cold Check Resistance ..... 20 cycles  
Print Resistance ..... No print  
SHER-WOOD Compliant Water White  
Conversion

Varnish systems tested 18 hours at 2  
psi at 77°F (25°C) in direct contact with 8  
ounce Duck Cloth.

#### Household Chemicals Test

Panels prepared as for Print Resistance Test.  
After films were aged 30 days at 77°F (25°C),  
five drops of each item were placed under a  
watch glass for one hour. Then the film was  
rinsed with water, washed with warm water  
and soap, dried and wiped with VM&P Naphtha  
to remove items not removed with water.

There is no visual effect on the following tests:

- Household Ammonia
- Vinegar
- Lipstick
- Lemon Juice
- 50% Ethyl Alcohol
- Mercurochrome 2%
- Red Ink
- Washable Blue Ink
- Mustard
- Oil Base Paint
- Latex Emulsion Paint
- VM&P Naphtha
- Turpentine
- Orange Crayon
- Carbon Tetrachloride
- Mayonnaise
- Sour Milk
- 10% Sodium Carbonate Solution
- Margarine
- Butter
- Water

- Grease (cooking fat, 25°C or 77°F)

#### Detergent and Water Resistance (edge soak):

..... Passed KCMA test procedure

## SPECIFICATIONS

#### Product Limitations:

- SHER-WOOD Water White Conversion Varnish must be catalyzed 3% with SHER-WOOD KEMVAR Catalyst V66V21. Do not over catalyze. Do not use any other catalyst.
  - Do not use over conventional nitrocellulose lacquer sealers. Seal with SHER-WOOD Vinyl Sealer, T67F5 or T67F3, or conversion varnish.
  - 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.
  - Do not use SHER-WOOD Catalyst V66V26.
  - Maximum film thickness must not exceed 5 mils dry film because heavier films may cause cracking.
  - For interior use only.
  - Customers are urged to pretest the system under shop conditions.
  - For laboratory furniture and the best chemical resistance properties, Super KEMVAR "M" should be used.
  - While catalyzed varnish remains a low viscosity liquid beyond 24 hours, it should not be used after 24 hours because a chemical reaction is taking place. The resultant film may have inferior cure and crosslinking and a tendency for long-term cold checking.
  - To extend the use life at the end of the day, add 300-400% of uncatalyzed material. Add catalyst based on the uncatalyzed portion when ready to use the next day. Refrigeration also extends the working pot life.
  - Do not use in recirculating systems such as flocoaters or curtain coaters. Recirculating paint lines are okay.
  - **Temperature must be above 70°F during application and cure to insure acceptable coating properties.** Coatings cured at lower temperatures are prone to cracking, checking and brittleness.
  - Do not pack or stack finished parts with less than the cure listed below:
- | Board Surface Temp. | Time        |
|---------------------|-------------|
| 180°F               | 0.5 minutes |
| or 150°F            | 5 minutes   |
| or 140°F            | 30 minutes  |
| or 130°F            | 1 hour      |
| or 100°F            | 8 hours     |
| or 70°F+            | 24 hours    |
- This is the time required for minimum cure.
- Natural finished wood will change color on aging and exposure to light. This is a natural phenomenon. clear finishes will not prevent the wood from changing color.

## 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 question or comments to your local Sherwin-Williams facility.

#### LABEL CAUTIONS

DANGER! Contents are FLAMMABLE. Vapors may cause flash fires. Keep away from heat, sparks and open flame. During use and until all vapors are gone: Keep Area Ventilated - Do Not Smoke - Extinguish All Flames, Pilot Lights and Heaters - Turn Off Stoves, Electric Tools and Appliance and any other sources of ignition.

CONTAINS BUTYL ACETATE, ALIPHATIC HYDROCARBONS, XYLENE, ALCOHOLS, KETONES AND FORMALDEHYDE.

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 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: 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 regulations regarding pollution.

#### DELAYED EFFECTS 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. Contains Formaldehyde - a potential cancer hazard. WARNING: This product contains chemicals known to the State of

California to cause cancer, birth defects and other reproductive harm.

DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. FOR INDUSTRIAL USE ONLY. SEE MATERIAL SAFETY DATA SHEET.

SHER-WOOD Compliant Water White Conversion Varnish

**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.

AWSTC/Columbus  
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