



F9 Series PUREVAR™ Formaldehyde Free White Conversion Varnish

F9 Series PUREVAR™ products are a line of formaldehyde free, white, solvent borne, two component, alkyd/amino resin based conversion varnishes. Utilizing KCI's GREENCURE™ technology, PUREVAR™ has a unique cross-linking mechanism that does not contain or liberate formaldehyde during any part of the drying or curing process. They are high hiding topcoats with excellent chemical resistance and exceptional build. They are specifically designed to be used in combination with FX50 PUREPRIME™ White Post-Catalyzed Primer in order to achieve a completely formaldehyde free, high quality interior wood finishing system.

SUGGESTED APPLICATIONS

- Interior trim and millwork
- Office furniture
- Household furniture
- Cabinets
- Kitchen and bath components
- High demand furniture

KEY PERFORMANCE FEATURES

- Formaldehyde free
- Excellent hiding, high build
- Outstanding mar and scratch resistance
- Excellent chemical and moisture resistance
- Conforms to KCMA (A161.1.1.2000) & AWI/TR-4 Standards
- Meets NAAWS System # 5 Conversion Varnish Standards

RELATED PRODUCTS

FX50 PUREPRIME™ Formaldehyde Free White Post-Catalyzed Primer
844 Series Colourants



PHYSICAL PROPERTIES

Available Sheens	10, 20, 40
Weight Solids	52% ± 2
Volume Solids	47% ± 2
Viscosity	50 to 60" @ 25°C Ford 4
Specific Gravity	1.1500 ± 0.01 gms/cc @ 25°C
VOC	552 g/l
Typical coverage	10-12 m ² / ltr @ 1 mil dry

ADDITIONAL CHARACTERISTICS

Catalyzation	10% by volume 3CAT PURECAT™
Pot-Life	10-12 hrs at room temp.
Reduction	10% by volume T5247 High Flow Reducer
Retarder	n/a
Clean-up	CA4420 Gun Wash
Shelf-life	1 year from date of manufacture

Dry Times	
26°C (~78°F) 50% RH	
To Touch	10 minutes
To Sand	30-60 minutes
To Stack/Pack	24 hours

Note: Drying times will decrease at higher temperatures/lower humidity and will increase at lower temperatures/high humidity

COLOUR DEVELOPMENT – F9 Series PUREVAR™ Formaldehyde Free White Conversion Varnishes can be tinted with 844 Series Colourants up to a maximum of 5% by volume.

COATING PREPARATION - Ensure product is stirred well and brought to room temperature before use. Add 10% 3CAT PURECAT™ Catalyst by volume slowly under agitation (prior to reduction). Pot-life is 10-12 hrs at room temperature. Product may be sprayed by conventional, airless and air-assisted airless spray. F9 Series products may require up to 10% reduction with T5247 High Flow Reducer for some spray applications.

SURFACE PREPARATION - Wood surface should be clean, dry and free from any oil or grease. Sand surface smooth with 150-180 grit sandpaper.

APPLICATION - This product is designed to be applied in ambient conditions of 12-32°C (~55-90°F) and below 50% relative humidity.

For easier primer application, seal routed MDF areas with a KCI formaldehyde free post-catalyzed sealer or topcoat. Allow to dry 30-60 minutes at room temperature and sand coated areas with

240-320 grit sandpaper. Prime the entire substrate with FX50 PUREPRIME™ Formaldehyde Free White Post-Catalyzed Primer and allow to dry 30-60 minutes. Sand entire surface with 240-320 grit sandpaper. Apply PUREVAR™ in a full uniform coat at a rate of 4 to 5 mils wet. Dry for 1-2 hours at room temperature and sand the entire surface with 240-320 grit sandpaper. Apply a second thin coat of PUREVAR™ at 3 to 4 wet mils wet. Proper sanding is critical to produce a smooth finish and promote adhesion between the primer and the topcoat. Total film thickness of the finished system (primer and topcoat) should not exceed 5 dry mils.

SAFETY – During application, always wear eye protection, gloves and appropriate work clothing to minimize contact. Use a respirator and safety glasses at all times when spraying. Explosion proof ventilation is required with special consideration for enclosed or confined areas. Use caution when handling flammable liquids and eliminate sources of ignition and uncovered containers from the workplace. Vapours formed from this product may travel or be moved by air currents and ignited by pilot lights, light switches, other flames, smoking, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from the product.

F9 Series PUREVAR™ Formaldehyde Free White Conversion Varnish (cont'd)

PERFORMANCE TESTING / FILM CHARACTERISTICS

All performance testing is based on a composite of ASTM, AWI, ANSI and KCMA Standards

KCMA Testing (ANSI/KCMA A161.1.1.2000)

Test samples consist of solid red oak coated at 4 mils dry and aged for 21 days at room temperature

A. Chemical Testing

- Vertical position for 24 hrs, water washed, dried, examined

Vinegar	Pass
Orange Juice	Pass
Ketchup	Pass
Olive Oil	Pass
Mustard	Pass
Lemon Juice	Pass
Grape Juice	Pass
Coffee	Pass
100 Proof Alcohol	Pass

B. Detergent & Water Resistance Test

- PASS: No signs of blistering, whitening, delamination, swelling

C. Heat Resistance Test

- PASS: No signs of discolouration, whitening, delamination or swelling

D. Hot/Cold Cycle Test

- PASS: 10 cycles with no signs of discolouration, blistering, cold cracking or any film failure

Hot Print Resistance (ASTM D 2091-96)

- Test samples consisted of 1 mil dry film aged for 24 hours at room temperature prior to print testing
- Duck cloth under a weight of 4 psi was then placed on dry film surface for a defined temperature/time

72F (18 hrs) 4 psi:	pass
120F (1 hr) 4 psi:	pass
140F (1 hr) 4 psi:	pass

Hot/Cold Cycling Test (ASTM D 1211-97)

- Test samples were coated on red oak at 4 mils dry and aged 21 days at room temperature prior to testing
- One cycle consisted of:
 - 120F / 70% RH for 1 hour
 - Room temperature for 1 hour
 - 5F for 1 hour
- Specimens examined for discolouration, blistering, cold cracking and film failure
- No signs of failure at 10 cycles

Flammability Testing (ASTM E 84-08a) Surface Burn Rating

- Test samples consisted of fiberglass reinforced cement board coated with 4 mils dry of F9 Series PUREVAR™
- Samples were aged for 21 days at room temperature prior to testing
- Flame Spread Index: 5.0 Class 1 / Class A
- Smoke Development: 5.0 Class 1 / Class A

AWMAC / AWI (NAAWS Performance Standards Testing)

System # 5 Conversion Varnish (Opaque)

- Standard Score – 129/135
- F9 Series score - 129/135

Section A: Chemical Resistance Testing ASTM D1308

Vinegar	5	Red Wine	4
Lemon Juice	5	Windex	5
Orange Juice	5	Fantastic 409	5
Ketchup	5	Lysol	5
Coffee	5	33% Sulphuric Acid	5
Olive Oil	5	77% Sulphuric Acid	1
Boiling Water	5	28% Na ₄ OH	5
Cold Water	5	Gasoline	5
Nail Polish Remover	5	Murphy's Oil Soap	5
Household Ammonia	5	Vodka 100% Proof	5
VM&P Naphtha	5	1% Detergent	5
Isopropyl Alcohol	5	10% TSP	5

Rating: 1: Poor 2: Fair 3: Good 4: Very good 5: Excellent

Section B: Wear Resistance / ASTM D4060 Abrasion Resistance

Rating: 4/5

Section C: Cold Check Resistance / ASTM D1211

Rating: 5/5

Section D: Cross Hatch Adhesion / ASTM D3359

Rating: 5/5

TOTAL SCORE: 129/135

DISPOSAL - Disposal of chemicals and their solutions should be done according to local, provincial and federal regulations. Safety Data Sheets are available and should be consulted when handling products. These products are for industrial and professional use only; Application directions must be followed.

WARRANTY – Katilac Coatings Inc. warrants that its products are free from defects in manufacture for a period of one (1) year from date of purchase, if used prior to expiration date and applied and used in accordance with Katilac Coatings' most current published specifications applicable to such products. Katilac Coatings Inc. expressly disclaims all other warranties, express or implied, including the implied warranties of merchantability and fitness for purpose. Katilac Coatings Inc. disclaims all liability for incidental, consequential or indirect damages of any nature whatsoever. This warranty cannot be changed or modified whether by course of dealing, custom or trade or otherwise, unless agreed to in writing by Katilac Coatings Inc.



Ver09/20 Supersedes all previous versions.
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