



AW Series AQUAVAR™ Waterborne White Topcoats

AW Series Aquavar™ Waterborne White Topcoats are a line of self cross-linking waterborne, acrylic hybrid wood coatings. They are non-yellowing, non-flammable, low VOC, HAPs Free coatings that are specifically designed to be used in conjunction with KCI's AP14 Aquasurf™ Waterborne Pigmented Primer in high demand interior wood finishing applications.

This product is part of the KCI Green Star ★™ family of environmentally friendly coatings. KCI Green Star ★™ products feature outstanding performance and meet or exceed all of the latest North American environmental standards. See the Green Star ★™ Eco-Friendly Product Info Sheet for further details.

<p>SUGGESTED APPLICATIONS</p> <ul style="list-style-type: none"> interior trim and millwork office furniture household furniture cabinets kitchen and bath components <p>KEY PERFORMANCE FEATURES</p> <ul style="list-style-type: none"> low VOC, HAPs free non-flammable low odour formaldehyde and isocyanate free excellent mar and scratch resistance outstanding chemical and moisture resistance excellent flow and levelling fast dry, easy sand non yellowing conforms to KCMA / AWI Standards conforms to AWMAC System 8 Standards <p>RELATED PRODUCTS</p> <p>AP15 Aquasurf™ Waterborne White Primer 896 Series WB colorants</p>	<p>PHYSICAL PROPERTIES</p> <table> <tr><td>Available Sheens</td><td>15,25,35,50,70</td></tr> <tr><td>Weight Solids</td><td>44% ± 2</td></tr> <tr><td>Volume Solids</td><td>38% ± 2</td></tr> <tr><td>Viscosity</td><td>125-150" @ 25°C Ford 4</td></tr> <tr><td>Specific Gravity</td><td>1.1770 +/- 0.01 gms/cc @ 25°C</td></tr> <tr><td>VOC</td><td>129 g/l</td></tr> <tr><td>Typical coverage</td><td>8-12 m² / ltr @ 1 mil dry</td></tr> </table> <p>ADDITIONAL CHARACTERISTICS</p> <table> <tr><td>Catalyzation:</td><td>n/a</td></tr> <tr><td>Pot-Life:</td><td>n/a</td></tr> <tr><td>Reduction:</td><td>5% by volume with water</td></tr> <tr><td>Retarder:</td><td>n/a</td></tr> <tr><td>Clean-up:</td><td>water; flush equipment with alcohol</td></tr> <tr><td>Shelf-life:</td><td>1 year from date of manufacture</td></tr> </table> <p>Dry Times 26°C (~78°F) 50%RH</p> <table> <tr><td>To Touch</td><td>10-20 minutes</td></tr> <tr><td>To Sand</td><td>30-60 minutes</td></tr> <tr><td>To Stack/Pack</td><td>n/a hours</td></tr> </table> <p><small>Note: Drying times will decrease at higher temperatures/lower humidity and will increase at lower temperatures/high humidity</small></p>	Available Sheens	15,25,35,50,70	Weight Solids	44% ± 2	Volume Solids	38% ± 2	Viscosity	125-150" @ 25°C Ford 4	Specific Gravity	1.1770 +/- 0.01 gms/cc @ 25°C	VOC	129 g/l	Typical coverage	8-12 m ² / ltr @ 1 mil dry	Catalyzation:	n/a	Pot-Life:	n/a	Reduction:	5% by volume with water	Retarder:	n/a	Clean-up:	water; flush equipment with alcohol	Shelf-life:	1 year from date of manufacture	To Touch	10-20 minutes	To Sand	30-60 minutes	To Stack/Pack	n/a hours
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COLOUR DEVELOPMENT – AW Series Aquavar™ Waterborne White Topcoats can be tinted with 896 Series colorants up to a maximum of 5% by volume.

COATING PREPARATION - Ensure product is stirred well and brought to room temperature before use. Product may be sprayed by conventional, airless and air-assisted airless spray and is gun ready. Reduce with water up to 5% by volume. Ensure product is mixed after addition of colorants and water.

SURFACE PREPARATION - Wood surface should be clean, dry and free from any oil or grease. Sand surface smooth with 150-180 grit sand paper. For easier primer application, seal routed MDF areas with a KCI Aquavar™ clear series topcoat. Allow to dry 30-60 minutes at room temperature and sand coated areas with 240-400 grit sand paper. Prime the entire surface with AP14 Aquasurf™ WB White Primer at a rate of 3-4 mils wet. Dry 30-60 minutes at room temperature and sand the entire surface with 240-400 grit sand paper. *Proper sanding (within 8 hours of re-coating) is critical to produce a smooth finish and promote adhesion between primer coat and topcoat.* Apply a second full coat of Aquasurf™ at 4-5 wet mils and allow to dry 30-60 min.

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

It is recommended to finish MDF with

- 2 coats of AP14 primer and 1 coat AW series topcoat
- 1 coat of AP14 primer and 2 coats SW series topcoat

Apply AW Aquavar™ topcoat in a full even coat (4-5 wet mils). Allow to dry for 1-2 hours at room temperature before handling. Dry a minimum of 24 hours at room temperature before stacking and packing.

Total film build (primer and topcoat) should not exceed 5 mils dry.

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.

This product is freezable. Protect from freezing. Keep containers tightly closed and do not expose to temperature extremes.

AW Series AQUAVAR™ Waterborne White Topcoats (cont'd)

SPRAY EQUIPMENT RECOMMENDATIONS

Conventional Siphon Feed

- Nozzle (0.060 to 0.080 inches)
- Atomizing Pressure (25-40 psi)

Standard Pressure Pot

- Nozzle (0.060 to 0.080 inches)
- Atomizing Pressure (25-40 psi)
- Pot pressure (7-10 psi)

HVLP (suction feed)

- Nozzle (0.061 to 0.072 inches)
- Atomizing pressure (30-40 psi)

PERFORMANCE TESTING / FILM CHARACTERISTICS

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

Household Chemical Resistance (ASTM D1308)

- test samples consist of 1 mil dry film on glass
- aged 7 days at room temperature prior to testing
- testing was performed by placing 1 milliliter of reagent on the surface of the dry film, under a watch glass for time as noted

Distilled Water (D1308.6.1.1)	24 hrs	No effect
Ethyl Alcohol (D1308.6.1.3)	24 hrs	No effect
Coffee @ 180F (D1308.6.1.13)	24 hrs	No effect
Vinegar (D1308.6.1.4)	24 hrs	No effect
Mustard (D1308.6.1.12)	2 hrs	No effect
Vegetable Oil (D1308.6.1.11)	24 hrs	No effect
Dish Detergent (D1308.6.1.8)	24 hrs	No effect

Note: A complete list of resistance tests with industrial and household chemicals can be found under ADDITIONAL STAIN TESTS

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 discoloration, blistering, cold cracking and film failure
- No signs of failure at 10 cycles

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

- Flame Spread Index.....5.0 Class 1 / Class A
- Smoke Development.....5.0 Class 1 / Class A

KCMA Testing (ANSI/KCMA A161.1.1.2000)

A. Chemical Testing

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

Vinegar	Pass	Lemon Juice	Pass
Orange Juice	Pass	Grape Juice	Pass
Ketchup	Pass	Coffee	Pass
Olive Oil	Pass	100 proof alcohol	Pass
Mustard	Pass *slight stain, disappears on aging		

B. Detergent & Water Resistance Test

- PASS – no signs of blistering, whitening, delamination, swelling

C. Heat Resistance Test

- PASS – no signs of discoloration, whitening, delamination or swelling

D. Hot/Cold Cycle Test

- PASS – 10 cycles with no signs of discoloration, blistering, cold checking or any film failure

Additional Stain Tests

Testing conducted according to AWI, ASTM & KCMA Standards

- test samples consist of 1 mil dry film on glass
- aged for 21 days at room temperature
- testing was performed by placing 1 milliliter of reagent on the surface of the dry film, under a watch glass for time as noted

Ketchup	24 hrs	5	Windex	24 hrs	5
Palmolive Sol.	16 hrs	5	Mustard	1 hr	5
50% Ethanol	24 hrs	5	Acetone	1 hr	3
4% NaOH	1 hrs	4	Water	24 hrs	5
Olive Oil	24 hrs	5	Boiling Water	16 hrs	5
Tomato Juice	16 hrs	5	Motor Oil	16 hrs	5
2% Ammonia	24 hrs	4	Grease/Oil	16 hrs	5
Nail Polish Rem.	1 hr	5	Lighter Fluid	16 hrs	5
Lemon Juice	24 hrs	5	Vinegar	24 hrs	5
Red Wine	24 hrs	5	1% Tide Sol.	16 hrs	5
Coffee @ 180°F	24 hrs	5			

Rating: 1-poor 2-fair 3-good 4-very good 5-excellent

DISPOSAL - Disposal of chemicals and their solutions should be done according to local, provincial and federal regulations. Product Material 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.