



emtech™

Water Based Coatings for a Changing World™

EM8000CV SERIES PRE-CATALYZED WATERBORNE CONVERSION VARNISH

Leed Credit ID: EQ4.1, EQ4.2, EQ4.5



EMTECH EM8000cv Pre-Catalyzed Waterborne Conversion Varnish is formulated for high-end furniture and cabinetry applications that require exceptional surface hardness and water resistance coupled with a traditional CV-type color tone.

EmTech EM8000 Pre-Catalyzed Conversion Varnish represents state-of-the-art formulating by utilizes our exclusive hybrid emulsion technologies that incorporate oil-modified resins and acrylic copolymers into a pre-catalyzed one-part package. EM-8000cv provides the rich color tones and durability associated with solvent-based coatings in a water-reducible, ultra low VOC, HAPS-Free coatings system. While categorized as a pre-cat CV, EM8000 can also be fortified with our CL100 Cross-Linker to create a post-cat type CV.

Formulated as a ready to spray, self-sealing system, or used in conjunction with our EMTECH EM1000 Universal Sealer, the

EM8000cv can be used on store fixtures, restaurant furniture, fine home furniture, interior/exterior architectural trim, yacht interiors and refinishing applications that require a conversion varnish-type repair.

EM8000 PreCat. Waterborne Conversion Varnish is available in Gloss (90), Semi-Gloss (65), Satin (35) or Flat (10) sheens.

EM8000cv Waterborne Conversion Varnish can be fortified with our CL100 CrossLinker to create a post-catalyzed type CV finish. The addition of 5 to 10% by liquid volume of CL100 will improve the physical durability of EM8000cv by tightening the molecular structure of the cured resin. CL100 improves the resistance of the cured film against high pH cleaners, alcohols and slow evaporating household chemicals. See the TDS for CL100 for more information.



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KCMA-Type Test Specification Results

Substrate and Preparation: KCMA Spot Test on Sealed Maple Veneer with 4-2mil coats of EM8000cv Gloss.

Chemical Resistance:

4-Hour Dwell Time / 4-Hour Recovery Time



Physical Specifications

Coatings Density: 8.60 lbs./Gal.
Solids % by Weight: 34%nv (gloss format)
VOC Content Actual: 41 Grams/Liter
VOC Content Regulatory: 90 Grams/Liter
HAPS Content: 0.0
pH: 8.5 – 9.0
Viscosity: 35-40 Sec Zahns #2 Cupverage
Dry Time: 30-40 minutes @ 3mils
Spread Rate: 400sq ft. per Gallon @ 3mils wet
Appearance: Straw color emulsion
Flash Point: Above 200°F
Shelf-Life: 12+ Months
Freeze/Thaw Stability: 3 cycles

Compound	Results
RTU Glass Cleaner	Pass–No Effect
409 TM	Pass–No Effect
Warm Water (100°F)	Pass–No Effect
Black Coffee	No Stain–No Effect
Denatured Alcohol	Softening /Minor Witness Line
Acetone	Softening / Full Recovery
Lacquer Thinner	Softening / Full Recovery

Features and Benefits

100% Burn-In Technology
Ultra Low VOC
CV-Type Durability
HAPs Free
SCAQMD Regional Compliant
USEPA AIM National Compliant
LEED Compliant
Multiple Substrate Adhesion Performance
Fast Dry/Cure Time
Water Clean Up
Non-hazardous/Non-flammable

Part Number & Sheen Chart

Part Number	Sheen Description	Gloss Reading
EM8100	Gloss	85°
EM8200	Semi-Gloss	60°
EM8300	Satin	40°
EM8400	Flat	15°

Spray Gun Set Up Recommendations*

Compressed Air HVLP	1.3mm–1.5mm needle set and corresponding air cap.
Air-Assisted Airless	.09–.11 tip set
Airless	Ultra-Fine or Fine tip set

*Consult with spray gun manufacturer for specific air pressure settings.



Directions for Use

All surfaces to be finished must be clean, dry and free of excess contamination. Proper surface preparation is the key to a successful finish.

1. Sand surface to be finished with quality, stearate-free sandpaper. The sandpaper grit schedule will vary between 220 to 400-grit depending on the surface condition and type of wood being finished.

After the surface has been sanded and prepared, remove dust with a water-damped, lint-free cloth. DO NOT USE OIL/WAX TACK CLOTHS.

2. If the surface to be finished has a grain filler, glaze or solvent-based stain applied to it, ensure that these products are compatible with the EM8000cv by preparing and a test panel before proceeding. If compatibility is in question, seal the opposing surface with EMTECH USH3000 Shellac Sealer before finishing with EM8000cv.
3. Mix varnish gently, then strain through a medium-mesh paint filter before using. Allow the strained varnish to settle before using.
4. Apply topcoats of EM8000cv as supplied, or thinned 5% by liquid volume with distilled water. Allow each coat to air dry for a minimum of 1 hour before recoating. Sanding between each coat is not required unless there are visible surface defects or the last coat has dried for more than 24-hours. Lightly sand with 400 or 600-grit stearate free sandpaper to remove imperfections. Allow the finish to dry and cure in a warm, dry area. Final chemical cure takes place after 120 hours at 70F.
5. The addition of 5-10% by liquid volume of CL100 CrossLinker will convert EM8000 from a pre-cat into a post-catalyzed solution. See the instructions for CL100 CrossLinker for exact procedures.

Clean-Up

All Target Coatings® Water-Based finishes clean up with soap and water. Rinse brushes, spray equipment and other application tools with warm, soapy water, then follow up with a plain, clean water rinse. Do not use alcohol or oil-based solvents to thin or clean up this material.



EM8000cv on
restored tables.

*Photo courtesy of
Becausewecan.org.*

Emergency First-Aid Procedures

Ingestion:

Administer large amounts of water.
DO NOT INDUCE VOMITING.
SEEK IMMEDIATE MEDICAL ATTENTION.

Inhalation:

Remove exposed person(s) to well ventilated area.
Treat symptomatically.

Eyes:

Flush with fresh water.
Seek medical attention.

Skin:

Flush with fresh water.
Seek medical attention if irritation occurs.

**Use only in well ventilated areas. Avoid inhaling spray mist.
Wear a NIOSH/MSHA approved respirator during spray applications.**