

GEMINI[®]

SUPERIOR COATINGS TECHNOLOGY

WOOD FINISHING PRODUCT GUIDE



GEMINI

SUPERIOR COATINGS TECHNOLOGY

“The best way to predict the future is to create it.”

Alan Kay (born 1940) computer scientist

At Gemini, we believe in creating our own future. Through bold new product lines like EVO® Eclipse we are bringing the next generation of product technologies to our customers.

Gemini is committed to the future by developing, newer, better, and more innovative technologies. Technologies that have less impact on the environment. Technology that makes life easier for our customers, and allows their businesses to thrive.

Gemini is dedicated not only to offering state-of-the-art coatings, but also superb distribution and unparalleled technical support to each of our customers.

Gemini Industries is an American company that is 100% owned by its employees with our headquarters in El Reno, Oklahoma. We are proud of that fact and we consider ourselves a tight-knit family. When you talk to a Gemini representative on the phone you are in fact talking to an owner. At Gemini, we pride ourselves in the ability to pay attention to detail and care for our customers like no others.

***We invite you to trust us for all your wood coatings needs.
So give us a call, talk to an owner, and experience the feeling of family.***

***A Superior
Level Of Quality***



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NITROCELLULOSE LACQUER SYSTEMS



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NITROCELLULOSE LACQUER SYSTEMS - AMBER

HIGH BUILD LACQUER SEALER HBLSS-0100

SPECIFICATIONS

Technology *High Viscosity Nitrocellulose Lacquer (Amber)*

- VOC <680
- Weight Solids: 27%
- Volume Solids: 21%
- Dry to Sand: 30 Minutes
- High Solids
- AIM Compliant
- Supplied Ready to Spray For Airless Application
- Easy to Apply
- Easy Sanding
- Quick Dry
- Excellent Film Build and High Profile Appearance
- Phthalate Free

HIGH BUILD LACQUER HBL-00XX

SPECIFICATIONS

Technology *High Viscosity Nitrocellulose Lacquer (Amber)*

- VOC <680
- Weight Solids: 29%
- Volume Solids: 24 %
- Dry to Sand: 45 Minutes
- High Solids
- AIM Compliant
- Supplied Ready To Spray for Airless Application
- Easy to Apply
- Quick Dry
- Excellent Film Build and High Profile Appearance
- Phthalate Free
- Available Sheens: 30, 60, 90

HIGH SOLIDS LACQUER SEALER HSS-0100

SPECIFICATIONS

Technology *Nitrocellulose Lacquer (Amber)*

- VOC <680
- Weight Solids: 26%
- Volume Solids: 21%
- Dry to Sand: 30 Minutes
- High Solids
- Lower Viscosity than our High Build Series
- Fast Dry Time
- Excellent Sanding Properties
- AIM Compliant
- Phthalate Free

HIGH SOLIDS LACQUER HSL-00XX

SPECIFICATIONS

Technology *Nitrocellulose Lacquer (Amber)*

- VOC <680
- Weight Solids: 27%
- Volume Solids: 21 %
- Dry to Sand: 45 Minutes
- High Solids
- Lower Viscosity than our High Build Series
- High Quality
- AIM Compliant
- Phthalate Free
- Available Sheens: 10, 25, 60, 90

LOW VOC NITROCELLULOSE LACQUER SYSTEMS - AMBER

HIGH BUILD LACQUER SEALER HB550SS-0100

SPECIFICATIONS

Technology *High Build Nitrocellulose Lacquer (Amber)*

- VOC <550
- Weight Solids: 23.5%
- Volume Solids: 17.5 %
- Dry to Sand: 30 Minutes
- High Solids
- HAPs Compliant
- Spray Viscosity
- Phthalate Free

HIGH BUILD LACQUER HB550-00XX

SPECIFICATIONS

Technology *High Build Nitrocellulose Lacquer (Amber)*

- VOC <550
- Weight Solids: 23%
- Volume Solids: 17.5 %
- Dry to Sand: 45 Minutes
- High Solids
- HAPs Compliant
- Spray Viscosity
- Phthalate Free
- Available Sheens: 30, 60, 90



NITROCELLULOSE LACQUER SYSTEMS - WATER CLEAR

WATER CLEAR LACQUER SEALER WCLSS-0100

SPECIFICATIONS

Technology **Nitrocellulose Lacquer (Water Clear)**

- VOC <680
- Weight Solids: 24%
- Volume Solids: 17.5 %
- Dry to Sand: 20 Minutes
- Fast Dry
- Easy Sanding
- AIM Compliant
- Specifically Formulated for Clarity
- Phthalate Free

WATER CLEAR LACQUER WCL-00XX

SPECIFICATIONS

Technology **Nitrocellulose Lacquer (Water Clear)**

- VOC <680
- Weight Solids: 27%
- Volume Solids: 19.7 %
- Dry to Sand: 30 Minutes
- AIM Compliant
- Specifically Formulated For Clarity
- Contains UV Absorbers
- Resists Yellowing
- Phthalate Free
- Available Sheens: 10, 30, 60, 90

LOW VOC NITROCELLULOSE LACQUER SYSTEMS - WATER CLEAR

WATER CLEAR LACQUER SEALER WCL275SS-0100

SPECIFICATIONS

Technology **Nitrocellulose Lacquer (Water Clear)**

- VOC <275
- Weight Solids: 18%
- Volume Solids: 13.5%
- Dry to Sand: 30 Minutes
- Fast Dry and Easy Sanding
- Low VOC
- HAPs Free
- Spray Viscosity
- High Quality Resin System
- Phthalate Free

WATER CLEAR LACQUER WCL275-00XX

SPECIFICATIONS

Technology **Nitrocellulose Lacquer (Water Clear)**

- VOC <275
- Weight Solids: 19.7%
- Volume Solids: 14.5 %
- Dry to Sand: 30 Minutes
- Low VOC
- HAPs Free
- Spray Viscosity
- High Quality Resin System
- Phthalate Free
- Available Sheens: 10, 20, 60, 90

HIGH SOLIDS WATER CLEAR LACQUER SEALER 700-1200

SPECIFICATIONS

Technology **High Solids Nitrocellulose Lacquer (Water Clear)**

- VOC <275
- Weight Solids: 24%
- Volume Solids: 18 %
- Dry to Sand: 30 Minutes
- Fast Dry and Easy Sanding
- Low VOC
- HAPs Free
- High Quality Resin System
- Spray Viscosity
- Phthalate Free

HIGH SOLIDS WATER CLEAR LACQUER 700-12XX

SPECIFICATIONS

Technology **High Solids Nitrocellulose Lacquer (Water Clear)**

- VOC <275
- Weight Solids: 26.5%
- Volume Solids: 19.5 %
- Dry to Sand: 30 Minutes
- Low VOC
- HAPs Free
- High Quality Resin System
- Spray Viscosity
- High Quality
- Phthalate Free
- Available Sheens: 10, 20, 30, 60, 90





NITROCELLULOSE LACQUER SYSTEMS - PIGMENTED

WHITE LACQUER WL-10XX

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <680
- Weight Solids: 45%
- Volume solids: 30 %
- Dry to sand: 30 minutes
- AIM Compliant
- Ready To Spray As Supplied
- Extremely User Friendly
- Fast Drying
- High Solids
- Rapid Build
- Excellent Hiding
- Phthalate Free
- Short Filled @ 124 oz Per Gallon For Ease Of Tinting
- Available Sheens: 10, 30, 60, 90

WHITE LACQUER UNDERCOAT U8080

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <680
- Weight Solids: 42.6%
- Volume solids: 24.3 %
- Dry to sand: 20 minutes
- AIM Compliant
- High Solids
- High Build
- Fast Dry
- Excellent Sandability
- Phthalate Free

WHITE VINYL PRIMER PVS-1100

SPECIFICATIONS

Technology - Nitrocellulose/Vinyl Lacquer

- VOC <680
- Weight Solids: 40.7%
- Volume solids: 23.4 %
- Dry to sand: 25 minutes
- Ready to spray
- Fast Dry
- Excellent Sanding Properties
- High Solids
- User Friendly
- Ready To Spray As Supplied For Airless Application
- Improved Performance over Standard Lacquer Primers
- AIM Compliant
- HAPs Compliant
- Phthalate Free

BLACK LACQUER BL-21XX

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <680
- Weight Solids: 30%
- Volume Solids: 19 %
- Dry to Sand: 30 minutes
- AIM Compliant
- Ready to Spray
- Fast Drying
- Phthalate Free
- Available Sheens: 10, 20, 90

BLACK LACQUER UNDERCOAT BU-2100

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <680
- Weight Solids: 30.1%
- Volume Solids: 18.9 %
- Dry to Sand: 30 minutes
- AIM Compliant
- Ready to Spray
- Fast Drying
- Sands Easy
- Phthalate Free

LOW VOC NITROCELLULOSE LACQUER SYSTEMS - PIGMENTED

WHITE LACQUER WL550-10XX

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <550
- Weight Solids: 35%
- Volume solids: 23 %
- Dry to sand: 45 minutes
- HAPs Compliant
- Excellent Durability
- High Solids
- Excellent Holdout
- Controlled For Tint Strength
- Supplied Ready To Spray For Airless Application
- Available Sheens: 20, 30, 60



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SURFACE COATING TECHNOLOGY

NITROCELLULOSE LACQUER SYSTEMS - PIGMENTED

LOW VOC NITROCELLULOSE LACQUER SYSTEMS - PIGMENTED

WHITE LACQUER UNDERCOAT (CaI Prime) LU550-1000

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <550
- Weight Solids: 49.6%
- Volume Solids: 29.3 %
- Dry to Sand: 45 minutes
- HAPs Compliant
- Ready to Spray For Airless Application
- Durable and Fast Drying
- Excellent Sandability
- Rapid Dry Schedule
- Phthalate Free

WHITE LACQUER SEALER 400-1200

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <275
- Weight Solids: 50%
- Volume Solids: 30 %
- Dry to Sand: 40 Minutes
- HAPs Free
- Easy to Use
- Rapid Dry Schedule
- Excellent Sandability
- Phthalate Free

WHITE LACQUER 400-12XX

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <275
- Weight Solids: 44.5%
- Volume Solids: 25 %
- Dry to Sand: 45 Minutes
- HAPs Free
- Ready to Spray
- Excellent Film Build and High Profile Appearance
- Phthalate Free
- Short Filled for Easy Tinting and Controlled for Tint Strength
- Available Sheens: 10, 20, 30, 60, 90

BLACK LACQUER SEALER 400-2400

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <275
- Weight Solids: 28%
- Volume Solids: 15 %
- Dry to Sand: 30 minutes
- Ready to Spray
- Excellent Sandability
- Low VOC
- HAPs Free
- Phthalate Free

BLACK LACQUER 400-24XX

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <275
- Weight Solids: 30%
- Volume Solids: 27 %
- Dry to Sand: 45 minutes
- Ready to Spray
- Low VOC
- HAPs Free
- Phthalate Free
- Available Sheens: 10, 20, 60, 90

LACQUER TINT BASE HTB400-00XX

SPECIFICATIONS

Technology - Nitrocellulose Lacquer

- VOC <275
- Weight Solids: 43%
- Volume Solids: 31 %
- Dry to Sand: 45 minutes
- HAPs Free
- Ready to Spray
- Phthalate Free
- Short Filled for Easy Tinting and Controlled for Tint Strength
- Neutral Tint Base for Deeper Colors
- Available Sheens: 20, 60







PRE-CATALYZED SYSTEMS - CLEAR

ULTRA SEAL MAX PRE-CAT SEALER USM-0350

SPECIFICATIONS

Technology *Pre-Catalyzed Lacquer Sealer*

- VOC <680
- Weight Solids: 22%
- Volume Solids: 16%
- Dry to Sand: 15 Minutes
- Fast Cure
- Very Easy Sanding
- Very Forgiving
- Meets or Exceeds KCMA Specifications

NEXUS PRE-CAT VINYL SEALER PVS-0100

SPECIFICATIONS

Technology *Pre-Catalyzed Lacquer Sealer
With Crosslinking Vinyl Resin*

- VOC <680
- Weight Solids: 22%
- Volume Solids: 16%
- Dry to Sand: 10-15 Minutes
- Fast Cure
- Very Easy Sanding
- Very Forgiving
- Very Good Resistance to Yellowing
- Meets or Exceeds KCMA Specifications

PRE-CAT LACQUER PC-00XX

SPECIFICATIONS

Technology *Pre-Catalyzed Lacquer*

- VOC <680
- Weight Solids: 28.4%
- Volume Solids: 20.7%
- Dry to Sand: 30 Minutes
- Self-Seal or Use With a Sealer
- Ready to Spray
- Contains UV Inhibitor
- Very Forgiving
- Meets or Exceeds KCMA Specifications
- Very Good Resistance to Yellowing
- Available Sheens-5, 10, 20, 30, 60, 90

NEXUS PRE-CAT LACQUER PC-04XX

SPECIFICATIONS

Technology *Pre-Catalyzed Lacquer*

- VOC <680
- Weight Solids: 27.8%
- Volume Solids: 20.5%
- Dry to Sand: 18-22 Minutes
- Fast Dry
- Self-Seal or Use With a Sealer
- Ready to Spray
- Contains UV Inhibitor
- Very Forgiving
- Meets or Exceeds KCMA Specifications
- Very Good Resistance to Yellowing
- Available Sheens-10, 20, 30, 60, 90





PRE-CATALYZED SYSTEMS - CLEAR

LOW VOC PRE-CATALYZED SYSTEMS

NEXUS NON-STEARATED PRE-CAT SEALER PCS550-0100

SPECIFICATIONS

Technology *Low VOC Pre-Catalyzed Lacquer Sealer*

- VOC <550
- Weight Solids: 29%
- Volume Solids: 21%
- Dry to Sand: 30 minutes
- HAP's Free
- High Solids
- User Friendly
- Rapid Cure Schedule
- Water Clear
- Meets or Exceeds KCMA Performance Requirements

NEXUS PRE-CAT LACQUER PC550-00XX

SPECIFICATIONS

Technology *Low VOC Pre-Catalyzed Lacquer*

- VOC <550
- Weight Solids: 34%
- Volume Solids: 26 %
- Dry to Sand: 45 minutes
- HAPs Compliant
- Extremely Durable
- Ready to Spray
- Self-Seal or Use with a Sealer
- Meets or Exceeds KCMA Specifications
- Available Sheens - 10, 30, 60

NEXUS PRE-CAT SEALER PCS275-0100

SPECIFICATIONS

Technology *Low VOC Pre-Catalyzed Lacquer Sealer*

- VOC <275
- Weight Solids: 18.8%
- Volume Solids: 14.2%
- Dry to Sand: 30 Minutes
- Ready to Spray
- Low VOC
- HAPs Free
- Meets or Exceeds KCMA Specifications

NEXUS PRE-CAT LACQUER PC275-00XX

SPECIFICATIONS

Technology *Low VOC Pre-Catalyzed Lacquer*

- VOC <275
- Weight Solids: 23.2%
- Volume Solids: 17.4%
- Dry to Sand: 45 Minutes
- Low VOC
- HAPs Free
- Ready to Spray
- Self-seal or Use With a Sealer
- Meets or Exceeds KCMA Specifications
- Available Sheens- 10, 20, 30, 60, 90

NEXUS WHITE PRE-CAT TOPCOAT NEXW-15XX

SPECIFICATIONS

Technology *White Pre-Catalyzed Lacquer*

- VOC <680
- Weight Solids: 42.8%
- Volume Solids: 25.8%
- Dry to Sand: 50-60 Minutes
- HAPs Free
- Superior Flow, Leveling, and Hiding Properties
- Excellent Water Resistance-Passes 10 Days
ASTM Water Immersion Test D870-92
- Controlled for Tint Strength
- Short-Filled for Easy Tinting
- Available Sheens-10, 20, 30, 60, 90
- Meets or Exceeds KCMA Requirements

NEXUS CLEAR TINT BASE NTB-2430

SPECIFICATIONS

Technology *Clear Pre-Catalyzed Lacquer
Tinting Base for Dark Colors*

- VOC <680
- Weight Solids: 27.8%
- Volume Solids: 20.6%
- Dry to Sand: 25-30 Minutes
- Tint to any Medium/Dark Opaque Color
- Short -Filled for Easy Tinting
- Use as Final Topcoat or Topcoat With Clear
- Contains UV Inhibitor
- Available in Satin Sheen Only
- Meets or Exceeds KCMA Requirements





PRE-CATALYZED SYSTEMS - PIGMENTED

LOW VOC PRE-CATALYZED SYSTEMS

NEXPRIME PRECAT PRIMER NEXP-7000

SPECIFICATIONS

Technology *Pre-Catalyzed Lacquer Primer*

- VOC <550
- Weight Solids: 51.3%
- Volume Solids: 32%
- Dry to Sand: 45-60 Minutes
- Fast Cure
- Easy Sanding
- HAPs Free
- Great Build and Holdout on MDF
- Water and Chemical Resistant
- Meets or Exceeds KCMA Requirements

NEXUS WHITE PRE-CAT PCW550-10XX

SPECIFICATIONS

Technology *Low VOC White Pre-Catalyzed Lacquer*

- VOC <550
- Weight Solids: 40%
- Volume Solids: 24 %
- Dry to Sand: 45 minutes
- Low HAPs
- Water and Household Chemical Resistant
- Ready to Spray
- Controlled Tint Base
- Short Filled for Easy Tinting
- Meets or Exceeds KCMA Requirements
- Available Sheens- 10, 30, 60

NEXUS WHITE PRE-CAT PRIMER PVS275-1000

SPECIFICATIONS

Technology *Low VOC Pre-Catalyzed Primer*

- VOC <275
- Weight Solids: 45.3%
- Volume Solids: 28.6%
- Dry to Sand: 45 Minutes
- Low VOC
- HAPs Free
- Excellent Build and Hiding Power
- Meets or Exceeds KCMA Requirements

NEXUS WHITE PRE-CAT PCW275-10XX

SPECIFICATIONS

Technology *Low VOC White Pre-Catalyzed Lacquer*

- VOC <275
- Weight Solids: 33.2%
- Volume Solids: 19.6 %
- Dry to Sand: 45 Minutes
- Low VOC
- HAPs Free
- Ready to Spray
- Resistant to Water and Household Chemicals
- Resistant to Yellowing
- Meets or Exceeds KCMA Requirements
- Available Sheens- 10, 30, 60, 90

NEXUS 275 VOC CLEAR TINT BASE PC275TB-1230

SPECIFICATIONS

Technology *Low VOC Pre-Catalyzed Lacquer*

- VOC <275
- Weight Solids: 27.6%
- Volume Solids: 19.4%
- Dry to Sand: 45-60 minutes
- 275 VOC Compliant
- HAPs Free
- Ready to Spray
- Self-Sealing
- Short Filled For Tinting
- Non Photo Chemically Reactive
- Phthalate Free
- Meets Or Exceeds KCMA Performance Requirements
- Available Sheens- 30





POST-CATALYZED LACQUERS - CLEAR & PIGMENTED

POST-CATALYZED LACQUER SYSTEMS – CLEAR

NEXUS CORE CONVERSION LACQUER NXC-07XX

SPECIFICATIONS

Technology *Post-Catalyzed Lacquer*

- VOC <680
- Weight Solids: 32.3%
- Volume Solids: 24.2%
- Dry to Sand: 45 Minutes
- 120 Day Pot Life!!
- Self-Seal or Use With a Sealer
- Ready to Spray
- Contains UV Inhibitor
- Increased Performance over Standard Precats
- Meets or Exceeds KCMA Specifications
- Excellent Resistance to Yellowing
- Available Sheens-10, 20, 30, 60, 90

ULTRA LACQUER UL-00XX

SPECIFICATIONS

Technology *Post-Catalyzed Lacquer*

- VOC <680
- Weight Solids: 36.5%
- Volume Solids: 28.5%
- Dry to Sand: 60 minutes
- 60 day Pot Life
- Self-Seal or Use With a Sealer
- Ready to Spray
- Contains UV Inhibitor
- Increased Performance Over Standard Precats
- Meets or Exceeds KCMA Specifications
- Available Sheens-10, 20, 30, 60, 90

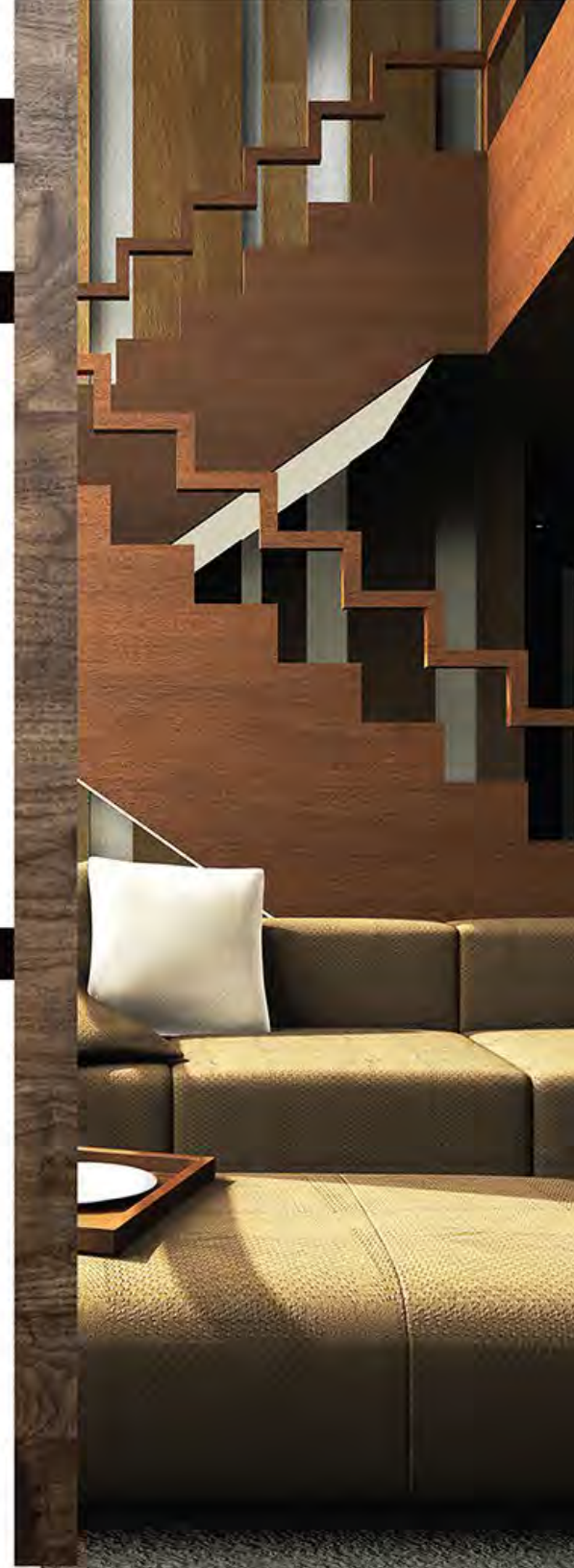
POST-CATALYZED LACQUER SYSTEMS – PIGMENTED

ULTRA LACQUER WHITE UL-10XX

SPECIFICATIONS

Technology *Post-Catalyzed Lacquer*

- VOC <680
- Weight Solids: 50.2%
- Volume Solids: 34.2%
- Dry to Sand: 45 Minutes
- Ready to Spray
- HAPs Free
- Short-Filled Containers to Allow for Tinting and the Addition of Catalyst
- Increased Performance Over Standard Precats
- Meets or Exceeds KCMA Specifications
- Available Sheens-10, 20, 30, 60







CONVERSION VARNISH SYSTEMS - CLEAR

ASTERIA SEALER ASTS-0300

SPECIFICATIONS

Technology *Conversion Varnish Sealer*

- VOC <550
- Weight Solids: 41%
- Volume Solids: 32.6 %
- Dry to Sand: 35 minutes
- Fast Cure
- Water Clear
- Superb Sanding Properties
- Containers are Short Filled to Allow for the Addition Of Catalyst
- 24 Hour Pot-Life
- Excellent UV Resistance
- Meets or Exceeds KCMA Specifications
- Phthalate Free

CATALYZED VINYL SEALER CVS-0100

SPECIFICATIONS

Technology *Long Pot Life Conversion Varnish Vinyl Sealer*

- VOC <675
- Weight Solids: 23.4%
- Volume Solids: 17.6 %
- Dry to Sand: 35 minutes
- 60 Day Pot Life!
- User Friendly
- Ready to Spray Once Catalyzed
- Catalyst Supplied in Pre-Measured Containers
- Meets or Exceeds KCMA Specifications

CV VINYL SEALER CVS-0400

SPECIFICATIONS

Technology *Conversion Varnish Vinyl Sealer*

- VOC <650
- Weight Solids: 26.7%
- Volume Solids: 20%
- Dry to Sand: 30 Minutes
- 7 Day Pot Life
- Fast Dry
- Ready to Spray Once Catalyzed
- Catalyst Supplied in Pre-Measured Containers
- Meets or Exceeds KCMA Specifications

ASTERIA AFCVRS 02XX

SPECIFICATIONS

Technology *Conversion Varnish*

- VOC <550
- Weight Solids: 43.5%
- Volume Solids: 34.4%
- Dry to Sand: 30 Minutes
- Self-Seal or Use With a Sealer
- Ready to Spray Once Catalyzed
- Containers are Short-Filled to Allow for the Addition of Catalyst
- 24 Hour Pot Life
- Super Fast Cure
- Very Forgiving
- Excellent UV Resistance
- Meets or Exceeds KCMA Specifications
- Available Sheens-5, 10, 20, 30, 60, 90

GEMVAR UCV-00XX

SPECIFICATIONS

Technology *Conversion Varnish*

- VOC <624
- Weight Solids: 35.5%
- Volume Solids: 27%
- Dry to Sand: 45-60 Minutes
- Self-Seal or Use with a Sealer
- Ready to Spray Once Catalyzed
- 4 Day Pot Life
- Catalyst Supplied in Pre-Measured Containers
- Excellent UV Resistance
- Meets or Exceeds KCMA Specifications
- Available Sheens-10, 20, 30, 60, 90





LOW VOC CONVERSION VARNISH SYSTEMS

PREMIUM HIGH SOLIDS CV TOPCOAT CV275-00XX

SPECIFICATIONS

Technology *Low VOC High Solids Conversion Varnish*

- VOC <275
- *Weight Solids: 51.4%*
- *Volume Solids: 50.0%*
- *Dry to Sand: 1-2 Hours*
- *Self-Sealing*
- *Low VOC*
- *HAPs Free*
- *Ultra Low Formaldehyde*
- *Super High Build*
- *24 Hour Pot Life*
- *Catalyst Supplied in Pre-Measured Containers*
- *Meets or Exceeds KCMA Specifications*
- *Available Sheens-10, 20, 30, 60, 90*



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CONVERSION VARNISH TECHNOLOGY

CONVERSION VARNISH SYSTEMS - PIGMENTED

ASTERIA WHITE PRIMER SURFACER ACVP-8000

SPECIFICATIONS

Technology *Conversion Varnish Primer (White)*

- VOC <399
- Weight Solids: 63.1%
- Volume Solids: 45.4%
- Dry to Sand: 25-30 Minutes
- High Build
- Perfect for MDF
- Also Designed as a White Tint Base for Tinting Off White and Pastel Colors
- Short Filled to Allow for Tinting and Catalyst
- Excellent Sanding Properties
- Superb Adhesion and Water Resistance
- 8 Hour Pot Life
- Meets or Exceeds KCMA Specifications

ASTERIA NEUTRAL PRIMER SURFACER ANP-8500

SPECIFICATIONS

Technology *Conversion Varnish Primer (Neutral)*

- VOC <445
- Weight Solids: 56.6%
- Volume Solids: 43.2%
- Dry to Sand: 25-30 Minutes
- High Build
- Perfect for MDF
- Designed as a Neutral Tint Base for Tinting Medium to Dark Colors
- Short Filled to Allow for Tinting and Catalyst
- Excellent Sanding Properties
- Superb Adhesion and Water Resistance
- 8 Hour Pot Life
- Meets or Exceeds KCMA specifications

PRESIDIO WHITE VINYL PRIMER SURFACER CVP-1000

SPECIFICATIONS

Technology *Conversion Varnish Vinyl Primer*

- VOC <550
- Weight Solids: 47%
- Volume Solids: 29%
- Dry to Sand: 35 Minutes
- 30 Day Pot Life
- Superior Adhesion
- Superior Water Resistance
- Excellent Sanding Properties
- Catalyst Supplied in Pre-Measured Containers
- Meets or Exceeds KCMA Specifications
- ASTM D870-92 Water Immersion-Passes 8 Days

ASTERIA WHITE ASTW-10XX

SPECIFICATIONS

Technology *White Conversion Varnish*

- VOC <550
- Weight Solids: 64.6%
- Volume Solids: 48.6%
- Dry to Sand: 50-60 Minutes
- Super High Solids
- Ready to Spray Once Catalyzed
- 16 Hour Pot Life
- Superior Flexibility
- Excellent UV Resistance
- Containers are Short-Filled to Allow for Tinting and the Addition of Catalyst
- Excellent Resistance to Metal Marking
- Meets or Exceeds KCMA Specifications
- Available Sheens-10, 20, 30, 60, 90

GEMVAR WHITE UCV-10XX

SPECIFICATIONS

Technology *Pigmented Conversion Varnish*

- VOC <583
- Weight Solids: 48.9%
- Volume Solids: 31.6%
- Dry to Recoat: 45-60 Minutes
- 24 Hour Pot Life
- Catalyst Supplied in Pre-Measured Containers
- Exceptional Water and Chemical Resistance
- Outstanding UV Resistance
- Smooth Silky Feel
- Short Filled to Allow for Tinting and Catalyst
- Meets or Exceeds KCMA specifications
- Available Sheens-10, 30, 60, 90





LOW VOC CONVERSION VARNISH SYSTEMS

WHITE CV PRIMER CVP275-1400

SPECIFICATIONS

Technology *Low VOC CV Primer*

- VOC <275
- Weight Solids: 53.2%
- Volume Solids: 37%
- Dry to Sand: 30-40 Minutes
- 8 Hour Pot Life
- Low VOC
- HAPs Free
- Excellent Sanding Properties
- Superb Adhesion
- ASTM D870-92 Water Immersion-Passes 7 Days
- Catalyst Supplied in Pre-Measured Containers
- Meets or Exceeds KCMA Specifications

PREMIUM WHITE CV CVW275-13XX

SPECIFICATIONS

Technology *Low VOC High Solids White Conversion Varnish*

- VOC <275
- Weight Solids: 59.1%
- Volume Solids: 50%
- Dry to Sand: 60-70 Minutes
- 5 Day Pot Life
- Low VOC
- HAPs Free
- Catalyst Supplied in Pre-Measured Containers
- Meets or Exceeds KCMA Specifications
- Available Sheens-10, 20, 30, 60, 90

275 VOC CV DEEP TINT BASE CV275TB-0030

SPECIFICATIONS

Technology *Low VOC Conversion Varnish*

- VOC <275
- Weight Solids: 52.75%
- Volume Solids: 50%
- Dry to Sand: 1-2 hours
- 24 Hour Pot Life
- Low VOC
- HAPs Free
- Ultra-Low Formaldehyde
- Excellent UV Resistance
- Self-Sealing
- High Solids
- Short-Filled for the addition of catalyst
- Short Filled For Tinting
- Passes 168 Hours ASTM Water Immersion Test D870-92
- Meets Or Exceeds KCMA Specifications
- Available Sheens- 30





GEMINI
SUPERIOR COOKING TECHNOLOGY

WATERBORNE SYSTEMS



EVO
ECLIPSE
the evolution of coatings in progress



EVO WATERBORNE SYSTEMS - CLEAR

EVO® ECLIPSE - CLEAR

LOW VOC Waterborne Technology • 100% Formaldehyde Free

ECLIPSE CLEAR SEALER ECLSS-0100

SPECIFICATIONS

Technology

Dual Crosslinking Waterborne Sealer

- VOC <275
- Weight Solids: 33.7%
- Volume Solids: 30.7%
- Dry to Sand: 15-20 Minutes
- Ready to Spray
- Exceptional Sanding Properties
- Fast Drying Like Solvent Borne Coatings
- Easier to Apply Than Most Low VOC Solvent Borne Coatings
- Low Odor Finish is Perfect for Finishing in Shop or On Site With No Smell
- Low VOC and HAPs Free
- Add Optional Hardener for Increased Durability
- Meets or Exceeds KCMA Specifications

ECLIPSE CLEAR TOPCOAT ECL-00XX

SPECIFICATIONS

Technology

Dual Crosslinking Waterborne Topcoat

- VOC <275
- Weight Solids: 33.5%
- Volume Solids: 31.1%
- Dry to Dand: 30 Minutes
- Fast Drying Like Solvent Borne Coatings
- Easier to Apply Than Most Low VOC Solvent Borne Coatings
- Low Odor Finish is Perfect for Finishing in Shop or On Site With No Smell
- Low VOC and HAPs Free
- Passes 21 Days of Edge Soak
- Passes 14 Days ASTM Water Immersion Test D870-92
- Meets or Exceeds KCMA Specifications
- Optional Hardener Increases Durability
- Optional Anti-Microbial Protection Lasts the Life of the Coating
- Available Sheens- 5, 10, 20, 30, 60, 90



GEMINI
SPECIALTY COATINGS TECHNOLOGY

EVO® ECLIPSE - PIGMENTED

LOW VOC Waterborne Technology • 100% Formaldehyde Free

ECLIPSE WHITE PRIMER ECLWP-1000

SPECIFICATIONS

Technology

Dual Crosslinking Waterborne Primer

- VOC <275
- Weight Solids: 57.2%
- Volume Solids: 40.8%
- Dry to Sand: 25-30 Minutes
- Ready to Spray
- Fast Drying Like Solvent Borne Coatings
- Exceptional Sanding Properties
- Easier to Apply Than Most Low VOC Solvent Borne Coatings
- Low Odor Finish is Perfect for Finishing in Shop or On Site With No Smell
- Low VOC and HAPs Free
- Meets or Exceeds KCMA Specifications

ECLIPSE BLACK PRIMER ECLBP-2000

SPECIFICATIONS

Technology

Dual Crosslinking Waterborne Primer

- VOC <275
- Weight Solids: 47.5%
- Volume Solids: 36 %
- Dry to Sand: 25-30 Minutes
- Ready to Spray
- Fast Drying like Solvent Borne Coatings
- Exceptional Sanding Properties
- Easier to Apply Than Most Low VOC Solvent Borne Coatings
- Low Odor Finish is Perfect for Finishing in Shop or On Site With No Smell
- Low VOC and HAPs Free
- Meets or Exceeds KCMA Specifications

ECLIPSE WHITE ECLWT-01XX

SPECIFICATIONS

Technology

Dual Crosslinking Pigmented Waterborne Topcoat-White Tint Base

- VOC <275
- Weight Solids: 39.7%
- Volume Solids: 30%
- Dry to Sand: 60 Minutes
- Short Filled White Base Controlled for Tint Strength
- Fast Drying Like Solvent Borne Coatings
- Easier to Apply Than Most Low VOC Solvent Borne Coatings
- Low Odor Finish is Perfect for Finishing in Shop or On Site With No Smell
- Low VOC and HAPs Free
- Passes 21 Days of Edge Soak
- Passes 14 Days ASTM Water Immersion Test D870-92
- Meets or Exceeds KCMA Specifications
- Optional Hardener Increases Durability
- Optional Anti-Microbial Protection Lasts the Life of the Coating
- Available Sheens-10, 20, 30, 60, 90



EVO®

ECLIPSE

the evolution of coatings in progress





EVO

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the evolution of coatings in progress



EVO WATERBORNE SYSTEMS - PIGMENTED

EVO® ECLIPSE - PIGMENTED

LOW VOC Waterborne Technology • 100% Formaldehyde Free

ECLIPSE Mid Tone Tint Base ECLMT-02XX

SPECIFICATIONS

Technology *Dual Crosslinking Pigmented Waterborne Topcoat-Mid Tone Tint Base*

- VOC <275
- Weight Solids: 37.9%
- Volume Solids: 28.6%
- Dry to Sand: 60 Minutes
- Short Filled Mid Tone Base Controlled for Tint Strength
- Fast Drying Like Solvent Borne Coatings
- Easier to Apply Than Most Low VOC Solvent Borne Coatings
- Low Odor Finish is Perfect for Finishing in Shop or On Site With No Smell
- Low VOC and HAPs Free
- Passes 21 Days of Edge Soak
- Passes 14 Days ASTM Water Immersion Test D870-92
- Meets or Exceeds KCMA Specifications
- Optional Hardener Increases Durability
- Optional Anti-Microbial Protection Lasts the Life of the Coating
- Available Sheens-10, 20, 30, 60

ECLIPSE Deep Tint Base ECLDB-03XX

SPECIFICATIONS

Technology *Dual Crosslinking Pigmented Waterborne Topcoat-Deep Tint Base*

- VOC <275
- Weight Solids: 35.5%
- Volume Solids: 26.5%
- Dry to Sand: 60 Minutes
- Short Filled Deep Tone Base Controlled for Tint Strength
- Fast Drying Like Solvent Borne Coatings
- Easier to Apply Than Most Low VOC Solvent Borne Coatings
- Low Odor Finish is Perfect for Finishing in Shop or On Site With No Smell
- Low VOC and HAPs Free
- Passes 21 Days of Edge Soak
- Passes 14 Days ASTM Water Immersion Test D870-92
- Meets or Exceeds KCMA Specifications
- Optional Hardener Increases Durability
- Optional Anti-Microbial Protection Lasts the Life of the Coating
- Available Sheens-10, 20, 30, 60

ECLIPSE Clear Tint Base ECLCB-04XX

SPECIFICATIONS

Technology *Dual Crosslinking Pigmented Waterborne Topcoat-Clear Tint Base*

- VOC <275
- Weight Solids: 33.5%
- Volume Solids: 31.1%
- Dry to Sand: 60 Minutes
- Short Filled Clear Base Controlled for Tint Strength
- Fast Drying Like Solvent Borne Coatings
- Easier to Apply Than Most low VOC Solvent Borne Coatings
- Low Odor Finish is Perfect for Finishing in Shop or On Site With No Smell
- Low VOC and HAPs Free
- Passes 21 Days of Edge Soak
- Passes 14 Days ASTM Water Immersion Test D870-92
- Meets or Exceeds KCMA Specifications
- Optional Hardener Increases Durability
- Optional Anti-Microbial Protection Lasts the Life of the Coating
- Available Sheens-10, 20, 30, 60

EVO® Universal White Primer UP-1000

SPECIFICATIONS

Technology *Universal Waterborne Primer*

- VOC <100
- Weight Solids: 51%
- Volume Solids: 32%
- Dry to Sand: 30 minutes
- Fast Dry
- Exceptional Sanding Properties
- May be used with Approved Solvent Borne Products
- Low VOC
- HAPs Free
- Low Odor
- Meets or Exceeds KCMA Specifications



WATERBORNE SYSTEMS - PREMIUM SERIES

PREMIUM SERIES WATERBORNE SYSTEMS - CLEAR

PREMIUM SELF CROSS LINKING
WATERBORNE CLEAR **WBXL-03XX**

SPECIFICATIONS

Technology *Self-Crosslinking Acrylic Waterborne Topcoat*

- VOC <275
- Weight Solids: 32.3%
- Volume Solids: 29.4%
- Dry to Sand: 30 Minutes
- Self-Seal System
- Low VOC
- HAPs Free
- Low Odor
- Quick Dry and Stack time
- Available Sheens-10, 20, 30, 60, 90

PREMIUM SERIES WATERBORNE SYSTEMS - PIGMENTED

PREMIUM WATERBORNE WHITE TOPCOAT **WB-14XX**

SPECIFICATIONS

Technology *Pigmented Acrylic Waterborne Topcoat*

- VOC <275
- Weight Solids: 47.7%
- Volume Solids: 34.3%
- Dry to Sand: 45 minutes
- Low Odor
- Quick Dry
- Quick Stack Time
- Excellent Film Building Properties
- Excellent Flow and Leveling
- Minimum Grain Raise
- Good Moisture and Chemical Resistance
- Low VOC
- HAPs Free
- Formaldehyde Free
- Phthalate Free
- Available Sheens: 10, 30, 60, 90

FLOORING

PREMIUM WATERBORNE
FLOOR COATING **WUC-00XX**

SPECIFICATIONS

Technology *Post-Catalyzed
Waterborne Urethane*

- VOC <100
- Weight Solids: 33%
- Volume Solids: 30%
- Dry to Sand: 2-3 Hours
- Low VOC
- HAPs Free
- Extremely Durable
- Solvent Resistant
- Chemical Resistant
- Impact and Abrasion Resistant
- Excellent UV Resistance
- Available Sheens-10, 30, 60, 90

EXTERIOR

PREMIUM WATERBORNE
EXTERIOR COATING **WBE-00XX**

SPECIFICATIONS

Technology *Waterborne Acrylic Alkyd*

- VOC <275
- Weight Solids: 37-39%
- Volume Solids: 33-35%
- Dry to Sand: 30 Minutes
- Low VOC
- HAPs Free
- Formaldehyde Free
- Interior or Exterior Use
- Extremely Durable
- Resists Yellowing
- Meets or Exceeds KCMA Specifications
- Available Sheens-10, 30, 60, 90





GEMINI

SUPERIOR COATINGS TECHNOLOGY

STAINS & GLAZES



STAIN SYSTEMS - CRAFTSMAN STAINS

CRAFTSMAN WIPING STAIN BASE CC001

SPECIFICATIONS

Technology *Wiping Stain*

- VOC <800
- Dry to Re-Coat: 30-45 Minutes
- Designed Specifically for Industrial Shops
- Excellent Open Time
- Wipe or Spray and Wipe
- Short Filled for Tinting
- Tint Any Custom Color
- Less Blotching Than Many Other Types of Stains

CRAFTSMAN SPRAY STAIN BASE SS-0100

SPECIFICATIONS

Technology *Spray - No Wipe Stain*

- VOC <824
- Dry to Re-Coat: 15 Minutes
- Even Color with No Blotching
- Supplied as a Clear Stain Base with a Contemporary Color Palette of Formulas which Consists of 10 Key Colors-or-Tint Your Own Custom Formula.
- Short Filled for Tinting
- Extremely Forgiving
- Very Soft Settle

CRAFTSMAN LACQUER STAIN BASE S370

SPECIFICATIONS

Technology *Lacquer Wiping Stain*

- VOC <863
- Dry to Recoat: 30 minutes
- Easy to Apply
- Good Open Time
- Excellent Re-Wetting Characteristics
- Clear Base that can be Tinted to any Custom Color
- Short Filled for Tinting
- Specifically Formulated for use in Conjunction with High Performance Coatings

CRAFTSMAN STAIN BLENDING STATION

SPECIFICATIONS

Technology *Color Matching System for Wiping Stains*

Components Include:

- 9 Base Colors, 1 Clear Base and 67 Color Samples Finished on Solid Wood Samples
- Available Substrates: **Maple, Cherry, Alder, Red Oak**
- Formula Book
- Formula Spreadsheet for Bulking Formulas Up or Down

Library of 67 standard colors available from which your customers may choose. Each system comes with 2 substrates of your choosing and colors are easily adjusted to match any sample. Pick a sample that is close to the color you need and make small adjustments.

Saves time and money!



LOW VOC STAIN SYSTEMS

CRAFTSMAN ZERO VOC STAIN BASE CC2401

SPECIFICATIONS

Technology *Wiping Stain*

- VOC - ZERO
- Dry to recoat: 60 Minutes Minimum
- Easy to Apply
- Zero VOC
- HAPs Free
- Mild Odor
- Quick Recoat Time
- Short Filled for Tinting

ZERO VOC SPRAY STAIN BASE 620-0087

SPECIFICATIONS

Technology *Spray-No Wipe Stain*

- VOC - ZERO
- Dry to Recoat: 15 minutes
- Designed Specifically for Industrial Wood Shops
- Quick Recoat Time
- Short Filled for Tinting





Modern Color Palette, WITH TIMELESS APPEAL

The Craftsman Collection premium wiping stains are a spectacular fusion of color and technology that offers you the very best in wood stains!



Shaker Maple CC002



Woodsmoke CC003



Sandstone CC008



Driftwood CC006



Tobacco CC007



Hazelnut CC016



Gunstock CC010



Java CC015



Spiced Walnut CC005



Toffee CC014



Espresso CC004



Colonial CC013



STAIN SYSTEMS - WATERBORNE & DYE

WATERBORNE STAIN SYSTEMS

STAIN BASE WWSB-1700

SPECIFICATIONS

Technology *Waterborne Wiping Stain*

- VOC <737
- Dry to recoat: 60 minutes
- Designed Specifically For Industrial Wood Shops
- Long Open Time
- Excellent Adhesion
- Low Grain Raise
- Can Either Be Wiped, Or Sprayed And Wiped
- Tint To Any Custom Color
- HAPs Free

WATERBORNE SPRAY NO WIPE STAIN BASE 680-0027

SPECIFICATIONS

Technology *Waterborne Spray-No Wipe Stain*

- VOC <120 gpl (Material VOC)
- Dry to Recoat: 30 Minutes
- Designed Specifically for Industrial Wood Shops
- Quick Recoat Time
- Tint to Any Color with Approved Colorants
- HAPs Free

NGR DYE STAINS

DYE CONCENTRATES NG SERIES

SPECIFICATIONS

Technology *Concentrated Dye Colorants*

- VOC <120 (material VOC)
- Clean, Vivid Colors
- 8 Base Colors
- Use to Tint Custom NGR Colors Using NG3000 Dye Stain Base
- May be Added to Clear, Solvent Borne Sealers and Topcoats to Create Toners, and Tinted Wash-Coats.
- May be Used to Tint CRAFTSMAN Series Stains

NGR DYE STAINS NG3000

SPECIFICATIONS

Technology *Low VOC Non Grain Raising Dye Stain Base*

- VOC <120 (material VOC)
- Dry to Re-Coat: 10 Minutes
- Perfect Evaporation Rate, Not Too Fast, Not Too Slow
- Use Under CRAFTSMAN Wiping Stain or Spray Stains for Added Depth of Color
- Supplied as a Clear Stain Base With Formulas
- Contemporary Color Palette Consists of 12 Colors
- Tints With Gemini NG Dye Concentrates





GLAZE SYSTEMS - CRAFTSMAN GLAZES



CRAFTSMAN WIPING GLAZE GL1XXX SERIES

SPECIFICATIONS

Technology

Oil Based Wiping Glaze

- Dry to Re-Coat:
 - Clean Wipe-1-2 Hours
 - Medium Wipe- 2-4 Hours
- Excellent Open Time
- Natural Base Plus 5 Stock Colors
- Great for Distressed Finishes

CRAFTSMAN BREAKAWAY GLAZE BASE GL3000 LOW VOC

SPECIFICATIONS

Technology

Solvent Borne Breakaway/Powder Glaze

- Dry to Re-Coat: 5-10 Minutes
- Unique Glaze Effects Including Cered
- Tint to Any Custom Color
with 844 Colorants
- Fast Re-Coat
- Low VOC
- HAPs Free

The Craftsman Collection offers a full family of wood finishing glazes in six dynamic colors and a natural base for tinting (GL1000).



NATURAL
GL1000



WHITE
GL1200



JET BLACK
GL1300



VAN DYKE BROWN
GL1400



RAW UMBER
GL1450



BURNT UMBER
GL1700



SOLVENTS, REDUCERS, RETARDERS & FLATTENING

LACQUER THINNER FOR NITROCELLULOSE

LACQUER THINNER SOL-0500

SPECIFICATIONS

Uses - *Reduction of Nitrocellulose Lacquers*
Medium Fast Dry

THINNERS/REDUCERS FOR PRE-CATS AND POST-CATS

HAPs FREE LACQUER THINNER SOL-9011

SPECIFICATIONS

Uses - *Reduction of Nitrocellulose Lacquers,*
Pre-Catalyzed Lacquers, and Conversion Varnishes

- Fast Dry
- Rapid Viscosity Reduction
- Broad Compatibility

HAPs FREE REDUCER SOL-9059

SPECIFICATIONS

Uses - *Reduction of Pre-Catalyzed Lacquers,*
and Conversion Varnishes

- Medium Fast Dry
- Rapid Viscosity Reduction in Pre-and
Post Cat Coatings

RETARDERS FOR PRE-CATS AND POST CATS

HAPs FREE INDUSTRIAL RETARDER SOL-9012

SPECIFICATIONS

Uses - *Retard Drying of Conversion Varnishes*

- Slow Dry
- Designed for Conversion Varnish
but will Work in Pre-Cats as Well

RETARDER SOL-9056

SPECIFICATIONS

Uses - *Retard Drying of Pre-Catalyzed Lacquers*

- Slow Dry
- Designed for Pre-Cats, but will work
in Conversion Varnishes as well

LOW VOC SOLVENT OPTIONS

ZERO VOC LACQUER THINNER SOL-9032

SPECIFICATIONS

Uses - *Reduction of Nitrocellulose Lacquers,*
Pre-Catalyzed Lacquers, and Conversion Varnishes
Without Increasing VOC Levels

- Fast Dry
- Zero VOC
- Zero HAPs

LOW VOC RETARDER SOL-9030

SPECIFICATIONS

Uses - *Retard Drying of Lacquers, Pre-Catalyzed Lacquers,*
and Conversion Varnishes Without Significantly
Increasing VOC Levels

- Slow Dry
- VOC <25 Grams Per Liter
- Zero HAPs

SPECIALTY SOLVENTS FOR ALL YOUR COATING NEEDS

- ACETONE
- AROMATIC 150
- BUTYL ACETATE
- DENATURED ALCOHOL
- GLYCOL ETHER EB
- METHYL AMYL KETONE
- METHYL ETHYL KEYTONE
- METHYL ISOBUTYL KETONE
- AND MANY MORE...

*Please speak to a Gemini Representative About
Your Particular Solvent Needs*

FLATTENING

UNIVERSAL FLATTENING PASTE L7550

SPECIFICATIONS

Technology *Solvent Compatible Flattening Paste*

- Paste Media Mixes in Easily
- Use in All Gemini Solvent Coatings
- Mixing Chart Available





APPLICATION GUIDE

A Superior Level Of Quality

GEMINI PRODUCTS

	Formaldehyde Free Products	Low VOC Products	Fine Furniture	Kitchen & Bath	Architectural Millwork	Office Furniture	Interior Casework	Conference Tables	Musical Instruments	Restaurant Tables	Exterior Windows and Doors	Crafts	Floors and Stairs
Nitrocellulose Lacquer	✓	✓	✓		✓		✓		✓			✓	
Pre-Catalyzed Lacquer		✓	✓	✓	✓		✓		✓			✓	
Conversion Varnish		✓	✓	✓	✓		✓	✓		✓			
Waterborne Lacquer	✓	✓	✓	✓	✓		✓		✓			✓	
Waterborne Self Cross-Linking	✓	✓	✓	✓	✓		✓		✓			✓	
Waterborne Post-cat	✓	✓	✓	✓	✓	✓	✓		✓				
Waterborne Floor Finish	✓	✓											✓

Points to consider when choosing a finish

What do you expect from your finish?

What properties are the most important to you?

- **Aesthetics-Look and Feel**
- **Water Resistance**
- **Scratch and Mar Resistance**
- **Chemical Resistance**
- **UV Resistance/Non Yellowing**
- **Low Impact on the Environment and Health?**
- **ALL OF THE ABOVE?**

Here is a general guide:

NITROCELLULOSE LACQUERS

BENEFITS

- Easy to use, one component product with good all-around properties
 - No catalyst mixing involved, just stir and spray
 - Very fast dry and cure times
 - Easy to touch up and repair
 - Good overall durability
- ##### LIMITATIONS
- Poor resistance to solvents and chemicals
 - Marginal water resistance.
 - Should not be utilized as a system for kitchen cabinetry, or where durability, chemical or water resistance is required

PRE-CATALYZED LACQUERS

BENEFITS

- Great workhorse technology for finishing interior wood products
- Easy to use, one component product with good all-around properties
- No catalyst mixing involved, just stir and spray
- Fast dry and cure times
- Very good durability and water resistance

LIMITATIONS

- Shorter shelf life due to formulation
- Lower solids and less build than most conversion varnishes

CONVERSION VARNISHES (Post-Cats)

BENEFITS

- Overall durability and water resistance are much better than pre-catalyzed lacquers
- Chemical resistance is much better than pre-catalyzed lacquers
- Scratch and mar resistance are much better than pre-catalyzed lacquers
- Solids and build are typically much higher than pre-catalyzed lacquers

LIMITATIONS

- Must add catalyst to product
- Pot life-Once product has been catalyzed there is a specific time frame in which the product must be used (typically anywhere from 8 hours to multiple days)
- Requires a little more attention to detail

WATERBORNES

BENEFITS

- Dry times are usually just as fast as solvent borne products
- Environmentally friendly
- Non-Flammable
- Water clean up
- Formaldehyde Free
- Low VOC
- Usually HAPs free

LIMITATIONS

- Clarity is very good but not quite as good as solvent borne products
- More sensitive to environmental conditions

ADHESION



THE PROBLEM

Coating is chipping off or is easily scratched or rubbed off the surface.

KEY THOUGHT

At which step/layer is the adhesion failure occurring? Stain, wood, primer?

POSSIBLE CAUSES

- Improper sanding of white wood or sanding between coats not sufficient, or done with too fine a grit.
- Too much stain left on the surface, or stain not dry before recoating.
- Too much glaze left on the surface, or glaze not dry before recoating.
- Fast dry, causing the stain or coating to sit on top of the wood and not properly penetrate the wood fiber.
- Incompatible products used in the system.

COUNTERMEASURES

- Make sure bare wood is not over sanded or polished. Sanding between coats should be completed just before applying the next coat with paper no finer than 320 grit.
- Wiping stains should be wiped clean with all of the excess stain removed. Follow dry times listed on the Product Data Sheet.
- 90-95% of the glaze should be removed. Follow dry times listed on the Product Data Sheet.
- Slow the dry of the coating with the recommended retarder
- Stick with the manufacturers recommended system. Some products will have adhesion issues no matter how long they dry, or how well they are sanded.

ACID BLOOM

THE PROBLEM

A hazy, greasy film that forms on the surface of a finish. It typically has an unpleasant acidic odor. If wiped clean, the hazy appearance returns.

KEY THOUGHT

If the surface is hazy and smells like vomit, too much catalyst has been added.

POSSIBLE CAUSES

Too much catalyst has been added to the coating.

COUNTERMEASURES

Strip and refinish.

BLUSHING MOISTURE BLUSH



THE PROBLEM

The surface of the coating has a milky appearance, or in some cases, has turned completely white. Moisture blushing occurs when fast drying solvents cool the surface of the substrate you are finishing and moisture condenses on the cool surface.

KEY THOUGHT

Need to slow the coating down.

POSSIBLE CAUSES

- Spraying when relative humidity is high.
- Product has been thinned with a solvent that is too fast.

COUNTERMEASURES

- To avoid the blush, add recommended retarder before spraying.
- To slow the dry time. To fix a blushed piece, add the recommended retarder to the coating, scuff sand the piece and re-spray. Retarder may also be sprayed directly on the blushed surface.
- Add recommended retarder to slow the dry time.

BUBBLES, MICROBUBBLES and BLISTERS



THE PROBLEM

Bubbles (figure 1) are visible and break the surface in the dried film. This happens when the coating dries and skins over before all of the solvent and air from the pores of the substrate can pass through the film. When the bubbles are very small and trapped beneath the surface of the coating the phenomenon is referred to as microfoam or microbubbles (figure 2).

continued next column

BUBBLES, MICROBUBBLES and BLISTERS *continued*

Blisters (figure 3) are much larger (sometimes larger than a pencil eraser head) and are generally a result applying heat too quickly before the solvents in the coating have had a chance to flash off, or the temperature in the oven may be set too high. Water in the coating or the surface of the substrate, and poor quality veneer can also be the cause of blisters.

KEY THOUGHT

Coating is skinning over before bubbles can get out... Why?

POSSIBLE CAUSES

- Too much coating applied.
- Coating has become high in viscosity due to solvent loss or cool temperatures.
- Too much air movement in the finish/drying area.
- Ambient temperature is very hot.
- Incorrect thinner used i.e., too fast evaporating.
- Leak in siphon hose/tube to a high pressure spray unit i.e., airless or air assisted equipment.
- Veneer issues.

COUNTERMEASURES

- Follow wet mil recommendations on the PDS. Use a wet mil gage to measure the amount of product being applied and reduce the amount of product applied if needed to match the PDS.
- Reduce with recommended thinner to correct application viscosity listed on PDS. warm product to 78° F.
- Eliminate air movement. Move parts to an area with less air movement to flash off.
- Add recommended retarder to slow flash and dry times.
- Replace siphon tube/hose.
- Try applying a very light (1-1.5 mil) dust coat let dry to touch and then apply a normal coat.

BLUSHING SOLVENT BLUSH

THE PROBLEM

The surface of the coating has a milky appearance similar to a moisture blush. Most of the time this will be in an area where stain or glaze is heavy, or has gathered. Solvent blush usually occurs when a glaze or stain has been coated before all the non-active or "diluent" solvent from the stain or glaze has evaporated and it gets trapped in the coating.

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BLUSHING SOLVENT BLUSH *continued*

Typically, solvents used in wiping stains and glazes (for example mineral spirits) are not active for nitrocellulose or other resins in the system and therefore cannot pass through the film. They get trapped inside the film and cause the blush.

KEY THOUGHT

How long did the stain or glaze dry?

POSSIBLE CAUSES

- Stain or glaze has been re-coated before it was dry.
- Improper solvent added to the coating.

COUNTERMEASURES

- Follow dry times listed on the Product Data Sheet
- To fix a blushed piece, add the recommended retarder to the coating, scuff sand the piece and re-spray. Retarder may also be sprayed directly on the blushed surface.
- Always consult the Product Data Sheet for recommended thinners.

CRACKING



THE PROBLEM

Cracks in the finish. Cracks that go across the grain are usually what are referred to as "cold checking". This is typically what happens when more than the recommended number of coats is applied. The finish cracks when it is "stressed" either by temperature or changes in humidity which causes the substrate to move. Smaller cracks or spiderweb cracks typically appear when a product has been over-catalyzed or has not cured correctly.

KEY THOUGHT

Too much coating applied, improper curing.

POSSIBLE CAUSES

- Too many coats. Dry film thickness is too high.
- Too much catalyst added if a catalyzed coating.
- Heavy application.
- Poor inter-coat adhesion.
- Catalyzed product subjected to extreme cold temperatures before completely cured.

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CRACKING *continued*

COUNTERMEASURES

- Apply only the recommended amount of coats. Strip and refinish parts that have cracked.
- Is there an apparent catalyst bloom? Does the coating smell like vomit? This is a dead give-away that the product has been over-catalyzed. Strip and refinish parts that have bloomed or cracked.
- Apply the product only at the recommended wet film thickness listed, and let dry per the recommendations on the PDS. Heavy coats, applied too quickly can lead to improper cure and cracking.
- Make sure each coat is sanded properly with the recommended type and grit of sandpaper. Also, for catalyzed finishes, make sure sanding is performed just prior to re-coating. If sanded parts have sat over a weekend, re-sand before applying the next coat.
- Catalyzed products should cure @ a minimum of 65° F for at least a week before being transported in cold temperatures. Do not store finished parts in cold temperatures, especially for long periods of time.

DRY SPRAY

THE PROBLEM

Coating appears dry and rough similar to overspray, and is not "wetting out". Gloss appears low.

KEY THOUGHT

Poor technique, or coating is drying too fast.

POSSIBLE CAUSE

- Spraying technique is too fast, gun is held too far away from the surface, or overlap is insufficient.
- Spray Gun atomizing air pressure too high or fluid pressure set too low (conventional spray or low pressure setup).
- Incorrect thinner used i.e., too fast

COUNTERMEASURES

- Move gun closer to the part and slow down. Gun should be approximately 6-8 inches away from the part. Each pass of the gun should overlap the previous pass by at least 50%. 70% is better.
- Reduce atomizing air pressure or increase fluid flow.
- Add recommended retarder to slow dry.

GLOSS

THE PROBLEM Gloss is lower or higher than expected.

KEY THOUGHT Agitation, cure.

POSSIBLE CAUSES

- Coating has not been agitated sufficiently before and during use.
- Coating has not cured sufficiently.
- Improper application.
- Coating has been reduced too much, or too much retarder has been added.

COUNTERMEASURES

- Locate a new container of the same batch, mix thoroughly and re-check gloss. Coatings should be mixed thoroughly before use and continuously during use.
- Catalyzed coatings especially, may require up to 24 hours to reach the correct sheen. Also, if using a catalyzed product, ensure that the correct amount of catalyst was added to the coating. Under-cured coatings will always be high in sheen.
- A rough or textured surface will appear low in gloss. Make sure product is at the correct viscosity and that the equipment and spray technique are both correct.
- Thinning reduces the solids of the coating and if done excessively will appear low in gloss because the solids have been drastically reduced. Coatings can appear higher in gloss than normal when an excessive amount of retarder has been added.

FISHEYES (craters)

THE PROBLEM

This problem occurs when the coating is not able to wet the substrate completely. Craters are formed as the coating flows around the contaminated area. This is usually due to some form of contaminate on the surface of the substrate, or contamination of the coating.

KEY THOUGHT Contamination, find the source.

POSSIBLE CAUSES

- Surface contaminated by silicone, over spray dust, grease, water.
- Air Supply used to supply air to the gun or to blow off parts contaminated by oil, water, etc.
- Airborne contaminants-aerosol saw blade lubricants, waxes, Cleaning supplies like Windex, 409 etc.

- Lotions, greasy foods etc that may originate from finish/sanding personnel or anyone else required to touch parts.
- Remove the material from the shop in question and spray it in a different location with different equipment and on different substrate. If the fisheyes disappear, the issue lies somewhere in the shop. If the fisheyes persist, the coating has been contaminated. If the issue is in the shop, a process of elimination must be employed to locate the source.

COUNTERMEASURES

- Make sure the surface to be coated is free of contaminates, overspray and dirt.
- Make sure a good quality air regulators and filters are installed in the air line.
- Make sure any compressors supplying air are drained regularly.
- Avoid using any of these products in or near the finish room.
- Require all employees to wash their hands thoroughly after breaks, lunches etc.
- Follow this 10 step process and more than likely you will identify the cause of the fisheyes. 10 step process of elimination
 1. Spray from a new container of the same batch
 2. Spray from a new container of a different batch
 3. Spray using different equipment
 4. Spray on different substrate
 5. Spray material in question at a different location, with different equipment, on different substrate.
 6. Check air supply system, check compressor for water, check air line water and oil traps, make sure they are working and that the air used to supply air to the spray guns and to blow off parts is clean and dry.
 7. Check finish area for cleaners (409, Windex), lotions, food, etc., anything that could be either transferred to parts while being handled and sanded, or could be airborne and settling on parts waiting to be finished.
 8. Check the mill area (table saws especially) for any type of aerosol lubricant used for saw blades or table tops etc., that could be contaminating parts.
 9. Check for rags or tack rags used to wipe off parts in between coats that may be dirty or contaminated.
 10. What is being used to agitate the coating? Sometimes an old stir stick or something else used to mix the material can be the culprit.

LIFTING or WRINKLING



THE PROBLEM

Small wrinkled or puckered areas on the coating surface. They look similar to a crack that has pronounced raised edges. This happens with catalyzed coatings typically when the coating is in a "green state" (partially cured). For a finished surface to be recoated successfully, it needs to be completely soluble in, or completely impervious to, the next coat applied.

KEY THOUGHT

Cure, compatibility.

POSSIBLE CAUSES

- Under-cured coating due to: Heavy application of the previous coat, insufficient curing temperatures, excessive slow solvent added, incorrect catalyst amount. Coating was applied over wet stain or glaze.
- Poor inter-coat adhesion.
- Incompatible products in the system.

COUNTERMEASURES

- Make sure correct catalyst and amounts have been used. Wait 48 hours and try re-coating again. Ensure that curing temperatures are adequate-ideally at least 78° F (25° C).
- Make sure surface is scuff sanded sufficiently and only just before the next coat is applied.
- Do not mix systems, such as using a conventional lacquer sealer being applied under a CV.

PINHOLES



THE PROBLEM

Small pore-like holes are apparent in the dry film. Especially noticeable on painted surfaces. The problem is caused by trapped solvents, air, or moisture.

KEY THOUGHT

Improve the flow, slow the product.

POSSIBLE CAUSES

- Heavy coats at high temperatures, or on a heated surface.
- Substrate may be porous-fiberboard etc.
- Incorrect thinner used-(too fast).
- Too thin a coat applied on very porous substrate.

COUNTERMEASURES

- Apply material at the recommended wet mil thickness on the PDS. Add recommended retarder to the coating to slow it down if necessary. Make sure the coating and the substrate are close in temperature ideally close to 77° F (25° C)
- Try thinning the material slightly and adding a small amount of retarder. The lower the viscosity and the better the flow, the less likely pinholing is to occur.
- Add recommended retarder to slow the coating
- Apply material at the recommended wet mil thickness in the PDS.



TROUBLESHOOTING

ORANGE PEEL or TEXTURE



THE PROBLEM

Surface is rough or textured like the surface of an orange.

KEY THOUGHTS

High viscosity, material temperature is too cold, technique.

POSSIBLE CAUSES

- Viscosity is too high due to solvent evaporation or coating that is cold.
- Fast dry.
- Substrate temperature and coating temperature are significantly different.
- Improper spray technique-too fast, gun held too far away.
- Equipment setup.

COUNTERMEASURES

- Add recommended thinner until the correct viscosity is achieved. Warm the coating
- Add the recommended retarder to slow the dry time
- Warm the substrate and coating until the temperature of each is relatively equal and as close to 77° F (25° C) as possible
- Make sure gun is held 6-8 inches away and slow down if necessary. Make sure each pass is overlapped at least 50% into the previous pass
- Check equipment settings. Make sure there is not too much atomizing air and that the fluid pressures are sufficient. This will vary with each type of equipment

RUNS and SAGS

THE PROBLEM

Coating has collected heavily in certain areas, typically on vertical surfaces. This may be on edges, or even on the face of the parts.

KEY THOUGHTS

Heavy coat, material is thin, ambient temperature is cold, dirty or defective tip.

POSSIBLE CAUSES

- Excessive application, spray gun held too close to the part, heavy coats on vertical surfaces, too large a tip used.
- Viscosity of the coating is too low, excessive reduction or too much retarder has been added
- Cold environment or substrate.
- Spray gun tip, needle, or aircap is dirty or defective.

COUNTERMEASURES

- Spray only the correct wet mils recommended on the product data sheet. Spray gun should be held at least 6-8 away from the part. Change to a smaller tip or needle/nozzle combination.
- Obtain new material that has not been reduced and re-spray.
- Warm the substrate. Improve the temperature of the spray environment.
- Check equipment for defective or dirty components. Clean or replace components and check gun pattern on a piece of cardboard.



COMPANY OVERVIEW

Gemini Industries was founded in 1964.

Our corporate headquarters and main manufacturing facility sits on 14 acres in El Reno Oklahoma. Gemini was started as a family business but is now 100% employee owned.

GEMINI LOCATIONS

Gemini offers manufacturing facilities in *El Reno Oklahoma and Grand Prairie, Texas*

Gemini maintains warehouse & distribution centers in;

- Harrisonburg, Virginia*
- Grand Prairie, Texas*
- Holbrook, New York*
- Sparks, Nevada*
- and Bullhead, Arizona*

PRODUCTS and SERVICES

Gemini offers a complete line of; nitrocellulose lacquers, pre-catalyzed and catalyzed lacquers, UV curable coatings, acrylics, urethanes, conversion varnishes, stains, glazes and exterior wood stains & preservatives.





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May, 2023 Edition

GMC5028-FN