

I Am ALWAYS
Doing What I
CANNOT DO YET,
IN ORDER to LEARN
How to DO it

VINCENT VAN GOGH



Metal Leafing

Applying extremely thin coating of metal to your project.

Supplies (Needed)

1. Metal Leaf (Hobby Store, Amazon) – Gold, Copper, Silver, Aluminum, Variegated
2. Adhesive (Liquid, Pen or Spray) – Paint brush to apply liquid
3. Something for burnishing – Stiff paint brush, wax paper or cotton cloth
4. Sealer
5. Water for clean-up

Supplies (Nice to have)

1. Cotton Gloves
2. Primer
3. Sealer

Cost

1. \$0.50/5" x 5" sheet (\$2/sheet for real gold and silver)
2. Starter kit for \$12

Steps

- 1) Seal/Prime the wood very well (Sanding sealer was not enough)
- 2) Apply adhesive to area you want to leaf
- 3) Clean brush
- 4) Let dry until tacky (10-20 minutes)
- 5) Apply Leaf (static electricity to handle)
- 6) Clean-up excess leaf and correct missing areas
- 7) Burnish to help adhesion
- 8) Seal the leaf

References

1. YouTube – Search Metal Leafing
2. Speedballart.com (Mona Lisa Products)



Mona Lisa Products – Basecoat (Red), Adhesive, and Sealer



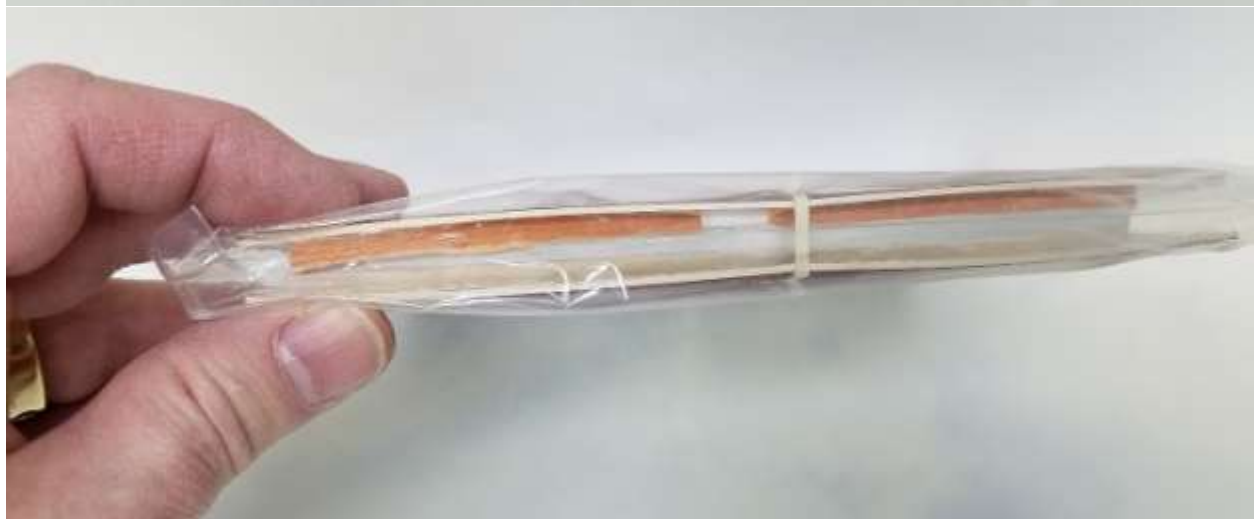
Mona Lisa Leafing Kits



Example of Variegated Leaf (Gold with Red)



Cotton Gloves make handling leaf easier



Another vendor of leaf (Package contains 300 sheets – very thin)

Milliput

Two-Part Clay like Epoxy inlayed into shallow groves and then machined on lathe

Supplies (Needed)

1. Milliput (Amazon) – White, Black, Silver/Grey, Yellow/Grey, Terracotta
2. Knife
3. Latex/Nitrile Gloves
4. Water for Clean-up

Supplies (Nice to have)

1. Wax Paper
2. Carbide turning tools

Cost

1. \$8-\$10/box – 1/8" sq. grove on 6" bowl you should get 10/box
2. 5 Pack Assortment is \$45

Steps

- 1) Cut slot or grove in bowl
- 2) Cut equal parts of desired color
- 3) Clean knife
- 4) Mix thoroughly (6 minutes of kneading)
- 5) Roll Milliput out into worms
- 6) Press worms into groves
- 7) Allow to dry over night
- 8) Cut back with carbide tools

References

1. You Tube - Search Milliput
2. Jimson's Stuff



Example of Milliput before mixing (two clay like logs)



Milliput come in five different colors (knife to cut sticks)



Wax paper to keep work area clean and place to roll out Milliput



Nitrile gloves to keep Milliput off of your hands

Wood Stabilizing

Using a vacuum to replace the air in a piece of wood with a resin that will later harden and change the properties of the wood

Supplies (Needed)

1. Vacuum Chamber and/or Bag and a Vacuum generator or pump
2. Stabilizing Resin – Cactus Juice by TurnTex or Stick Fast Stabilizing Resin
3. Latex/Nitrile Gloves
4. Aluminum Foil
5. Toaster Oven or Regular Oven

Supplies (Nice to have)

1. Aluminum Drip Pan
2. Alumilite Dye

Cost

1. Resin is \$100/gallon – Amazon was best price
2. Complete stabilizing kit - \$300 (Are cheaper ways to make your own)

Steps

- 1) Select wood to be stabilized
- 2) Place wood in chamber and secure so it won't float
- 3) Cover wood in stabilizing resin (1" over top)
- 4) Pull vacuum slowly until bubbles stop forming
- 5) Allow wood to soak off vacuum for 1 hour
- 6) Wrap wood in tin foil (save liquid for later reuse)
- 7) Bake wood for ~1 hour at ~190 degrees (you will see crystalized resin when it is dry)
- 8) Clean up equipment with soap and water while wood is drying
- 9) Let wood stand and cool before use (24 hours)

References

1. YouTube – Search Wood Stabilizing
2. TurnTex Website
3. Tech Marketing Inc. (TMI Products) Web Site
4. Chefware Kits Web Site



Cactus Juice wood stabilizer



Dye can be used to color the cactus juice before stabilizing



Vacuum Pump to create vacuum in chamber (be careful not to suck up liquid into pump)



Vacuum Generator (venture) can also be used to generate vacuum



Vacuum Chamber to hold wood and stabilizing solution (hold down required because wood floats)



Lid for vacuum chamber with gasket for seal – lid is clear so you can watch the process



After stabilizer has been vacuumed into wood, wrap in aluminum foil (dollar store)

Put foil packets in pan to keep leakage from ruining oven



Do not overcook or resin will leach out of wood



Larger items can be stabilized in a vacuum bag



Stabilizing with a bag will pull fluid out of bag. Extra fitting on lid allows pressure pot to be used to collect liquid so it does not go into the vacuum pump.

Phil's Finishing Method

Using wipe on poly and the Beall Buffing System to produce glossy, hard shelled finish

Supplies (Needed)

1. Sandpaper to sand project (80-400 grit) – I use Norton 3X/Pro Sand
2. Sandpaper to sand finish (600-1500 grit) – I use SiaSoft foam backed
3. Sanding Sealer, Lacquer thinner, Wipe On Poly (Satin or Gloss) – I used Deft lacquer based sanding sealer and Min Wax Wipe On Poly (buy the smaller container)
4. Paper Towels – I use Scott blue shop towels from Costco
5. Latex/Nitrile Gloves – Also from Costco
6. Safe place to discard your rags

Supplies (Nice to have)

1. Something to prop your projects on
2. Paste Wax or the Beall Buffing System
3. Air Compressor

Cost

1. Minwax Wipe On Poly (Satin or Gloss Pint) - \$12 at Home Depot
2. Deft Lacquer Sanding Sealer Quart - \$13 on Amazon
3. Lacquer Thinner - \$6/Pint
4. Beal Buffing System –\$80 (Add \$30 for the balls) at Woodcraft
5. Crystal Clear Paste Wax - \$13 at Woodcraft

Steps

- 1) Sand project thoroughly through 320 Grit
- 2) Apply Thinned Sanding Sealer (50/50) and let dry for 15 minutes
- 3) Sand back sealer with 320 and then 400 Grit and apply another coat and dry over night
- 4) Apply first coat of Wipe On Poly and let dry 24 hours before sanding with 600 grit
- 5) Apply second coat of Wipe On Poly and let dry 24 hours before sanding with 800 grit
- 6) Apply third coat of Wipe On Poly to one side of project and let dry 8 hours before adding coat to other side and let dry 24 hours before sanding with 1,000 grit
- 7) Apply fourth coat of Wipe On Poly like third and let dry 24 hours before sanding with 1,200 grit. If using Gloss poly, then start with it at this time
- 8) Apply fifth coat of Wipe On Poly like fourth and let dry 24 hours before sanding with 1,500 grit. Let dry an additional 24 hours.
- 9) For satin finish apply wax over Satin Poly and you are done. For Gloss finish, buff with Beal Buffing System over Satin Poly or if using Gloss Poly, apply wax. Beal system will give better surface but is not the best answer for many shapes.
- 10) Be sure to dispose of saturated rags safely



Use sanding sealer during sanding process to begin to fill wood grain



Wipe-On Poly is the heart of my finishing system. Satin for a satin finish or gloss when buffed. Gloss will provide a gloss finish without buffing.



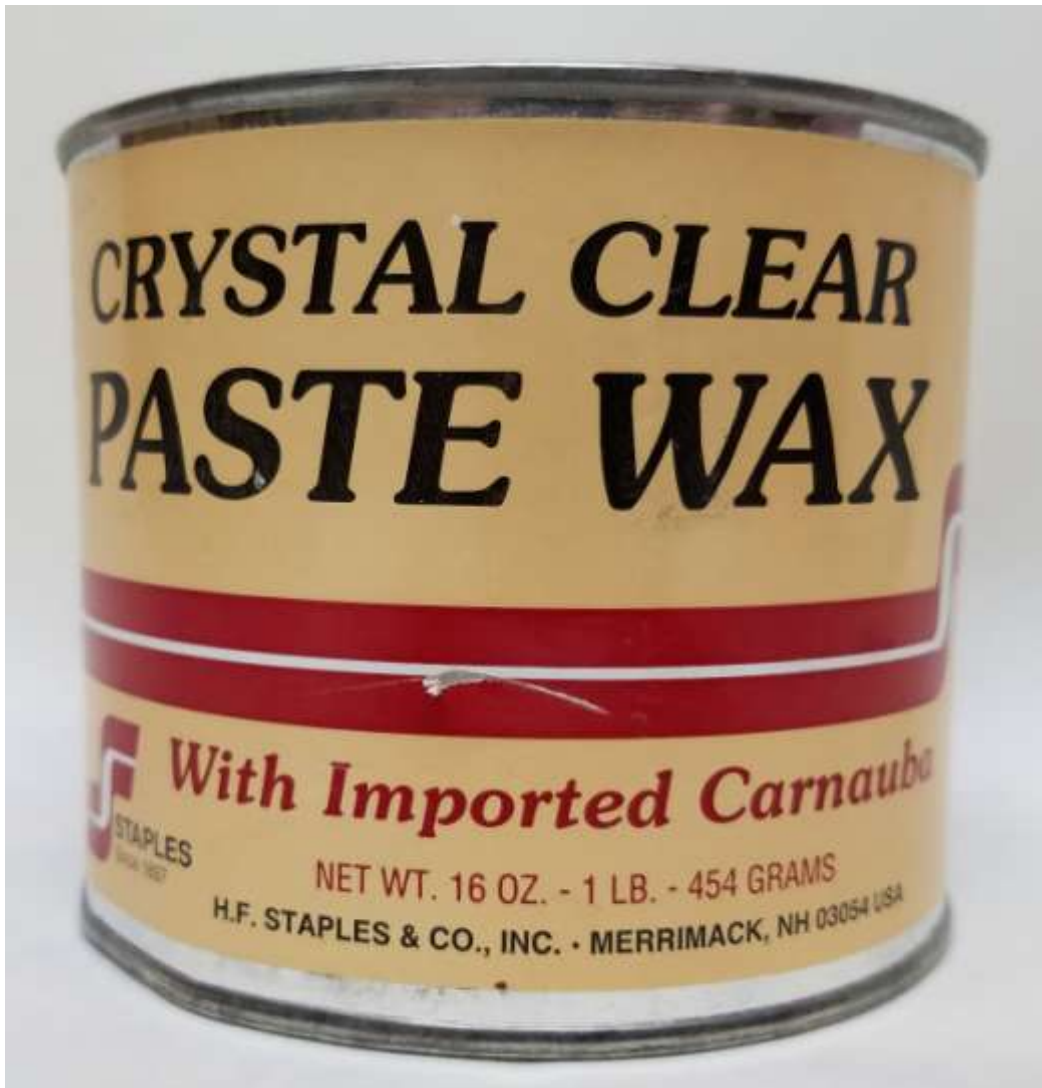
Salad bowl finish is another product I use but mostly for kitchen items like handles on knives. Salad Bowl finish is just another polyurethane finish.



I apply my wipe on finish with blue shop towels



Costco Brand Nitrile Gloves will protect your hands from the finish and give you a better grip



I like to use Crystal Wax as I final finish when I am not buffing the project. It works well over either the satin or gloss Wipe-On poly.



Between coats I sand with siasoft sandpaper (Vinceswoodnwonders.com)



Microfiber Clothes will help clean up the sanding dust, but I like to use compressed air first. The compressed air will get the small sanding particles out of grain and cracks.



The Beall Buffing system will give you a superior finish by evening out the system and imparting a warm glow with the final wax application.



These buffs work well inside of bowls. Make sure to increase the speed with the smaller diameter buffs.



Beall also has an extended shaft available to reach into deeper bowls.



Mini buffs are available for smaller projects. You can see how many times I have used mine (zero).

Demo Agenda

Get six volunteers before meeting starts – Size Medium Gloves

1. Mad Scientist for Wood Stabilizing – Chris Miller
2. Artist for Metal Leafing - ?
3. Strong Hands for Milliput – ?
4. Roving Photographer to catch all the action – Paul Neuberger
5. Runner to keep things moving - ?
6. Collector to make sure I get all my stuff back - ?

Set-up

1. Cover 2 work tables with paper to keep them clean (1 Volunteers, one presenter)
 - a. I have a roll of paper for this
2. 4 Chairs – from club
3. Roaster Pan and gloves for Mad Scientist (Club vacuum pump in closet on stage)
4. Gloves, Paint Brush, Adhesive, Water Cup and Paper towel for Artist
5. Gloves, Wax Paper for Strong Man
6. Collection Boxes in back of room for Collector
7. Table under overhead light and camera for presenter (mark circle on paper for camera view)
8. Side/back table for all the demo stuff
9. Two cameras, monitor, video switcher (how many feeds can we have?)
10. Mini Lathe and Beal Buffing System

Timing

- Time 0 Minutes
 1. Introduction of Today's Demo
 2. Introduction of Volunteers
 3. Format of Presentation (Short Order Cook)
 4. Reference sheets available on-line
- Time 3 Minutes
 1. Start Wood Stabilizing Process (Mad Scientist will monitor)
 2. Uses vacuum to replace air in wood with liquid resin to make wood harder
 3. Vacuum Generation, Vacuum Chamber, Gauge, Weight, Resin
 4. Put wood in pot, add hold down, add resin, add gasket, add lid, move to vacuum pot, start process slowly, and let Chris finish it off (1 hour)
- Time 8 Minutes
 1. Start Leafing Example
 2. Act of applying super fine layers of metal over a substrate
 3. Volunteer will apply adhesive to area we want leafed
- Time 10 minutes
 1. Start Milliput Example
 2. Moldable two part epoxy
 3. Cut ½ inch of Black and have volunteer mix/Make sure to clean knife

- Time 13 Minutes
 1. Why use wood stabilizer
 2. Explain total process
 - Select wood to be stabilized
 - Place wood in chamber and secure so it won't float
 - Cover wood in stabilizing resin (1" over top)
 - Pull vacuum slowly until bubbles stop forming
 - Allow wood to soak off vacuum for 1 hour
 - Wrap wood in tin foil (save liquid for later reuse)
 - Bake wood for ~1 hour at ~190 degrees (you will see crystalized resin when it is dry)
 - Clean up equipment with soap and water while wood is drying
 - Let wood stand and cool before use (24 hours)
 3. Examples of Spalted Woods (Good vs not so good)
 4. Cottonwood examples – Show Vacuum bag (Picture of set-up)
 5. Real reason I wanted to try stabilizing – change properties of wood
 - Rose Engine work – Mikes Sample
 - Thread chasing – Many Samples
 6. Costs Involved
 - Resin \$100/gallon – Made all this plus and still have 1 pt
 - Fancy set-up is \$300, build your own under \$100
- Time 22 minutes
 1. Check on leaf
 2. Check on stabilizing pot
 3. Take a few questions about wood stabilizing
- Time 24 minutes
 1. Explain milliput history – Jim Jaimison
 - Cut slot or grove in bowl
 - Cut equal parts of desired color
 - Clean knife
 - Mix thoroughly (6 minutes of kneading)
 - Roll Milliput out into worms
 - Press worms into groves
 - Allow to dry over night
 - Cut back with carbide tools
 2. Show finished and experimental examples
 3. Roll out some Milliput and put in slot, let volunteer do rest
 4. Cost of Milliput \$8-10/box
 5. Take a couple questions

- Time 30 minutes
 1. Talk a little about leafing
 - Seal/Prime the wood very well (Sanding sealer was not enough)
 - Apply adhesive to area you want to leaf
 - Clean brush
 - Let dry until tacky (10-20 minutes)
 - Apply Leaf (static electricity to handle)
 - Burnish to help adhesion
 - Clean-up excess leaf and correct missing areas
 - Seal the leaf
 2. Samples of products and finished pieces
 3. Start leafing on bowl, let volunteer finish
 4. Leaf is \$.50/sheet (5x5) – Real gold or silver \$2/sheet
 5. Take questions on leafing
- Time 40 minutes
 1. Check on Stabilizing
 2. Narrative on Phil's Finishing Method – show samples of other finishes
 - Sand project thoroughly through 320 Grit
 - Apply Thinned Sanding Sealer (50/50) and let dry for 15 minutes
 - Sand back sealer with 320 and then 400 Grit and apply another coat and dry over night
 - Apply first coat of Wipe On Poly and let dry 24 hours before sanding with 600 grit
 - Apply second coat of Wipe On Poly and let dry 24 hours before sanding with 800 grit
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 - Apply fifth coat of Wipe On Poly like fourth and let dry 24 hours before sanding with 1,500 grit. Let dry an additional 24 hours.
 - For satin finish apply wax over Satin Poly and you are done. For Gloss finish, buff with Beal Buffing System over Satin Poly or if using Gloss Poly, apply wax. Beal system will give better surface but is not the best answer for many shapes.
 - Be sure to dispose of saturated rags safely
 3. Pass around sample board
 4. Show products used – Pass around box
 5. Cost of Deft \$13/quart Cost of Minwax Wipe on Poly \$12/pint
 6. Talk about SiaSoft Deal
 7. Show and pass around all the different bowls and some finished examples
 8. Do buffing example
 9. Cost of Beall Buffing System - \$80 Kit, \$30 for additional bowl buffs
- Time 55 Minutes
 1. Final check on stabilizing
 2. Let off vacuum
 3. Thank everyone and Take questions on finishing method
- Time 60 minutes