Talking Points on Woodworking Glues
CMWA Presentation Oct 15, 2013

Epoxys
- Great gap fillers
- Waterproof/Solvent proof
- Bond a wide range of materials
- 5 minute epoxy – fast set
- 2 ton epoxy – strength
- System 3 –controllable in speed and color

Urea Formaldehyde
- Comes as a pre-catalyzed power that is mixed with water or as a liquid resin and a powered catalysts
- Used for veneers and bent laminations (won't creep)
- Waterproof and many solvent proof
- Long cure time (13 hrs @70 degrees F)
- Good up to 180 degrees F
- Contains Formaldehyde; use safety cautions

Super 77
- Great for gluing patterns to wood

CA
- Thin good for reinforcing wood and as a high gloss finish for small objects
- Thick good for gap filling and making matching filler
- Accellerant makes it instant but weaken bond; creates air bubbles
- Make sure you have debonder

Nexabond
- Comes in 3 curing times; Long, Medium, and short
- $7.78 1 oz; $16.50 4 oz bottle
- Requires no clamping
- No squeeze-out
- "accepts most stains and finishes"

Melamine and Vinyl adhesive
- Use like PVA when gluing Melamine and Vinyl
- Will also works with sealed wood

Polyurethane
- Several brands available but most popular is Gorilla glue
- Cures with moisture in air; best to wipe joint with damp rag first
- Long open time; good for large glue-ups
- Water/Heat/Solvent resistant; good for outdoor use
- Bonds dissimilar materials
- Creep resistant; good for laminations
- Do not use if you have asthma or respiratory conditions
- Foams in use; very poor gap filler

PVA's (Titebond I, II, III, Carpenter's glue, Yellow glue)

- Technically PVA means Polyvinyl Acetate = White glue
- No initial tack; dries clear
- Yellow glue means Aliphatic resin
- White glue and TB original (I) Poor water resistance
- TB II water resistant; TB III waterproof
- Not reversible; won't adhere to itself; not good for repairs
- Some creep allowing for wood movement; good choice for dovetails; poor choice for bent laminations
- Has short open time (5 min); closed (10 min)
- Squeeze out controlled by letting glue dry, cutting it off or with water
- Won't take stain
- Titebond No-run/drip – Used to be called Molding and Trim and good also for vertical surfaces. See Brochure

Hot Hide Glue

- Been around for centuries- since the pyramids
- Glue of choice before 1950
- Comes is different gram strengths; 192 grams best general purpose; 315 grams strongest
- Requires a glue pot, double boiler, or crock pot to mix glue
- Mix 3 parts water to 2 parts glue or add enough water to cover the glue plus ¼"
- Heat to 140 degrees; use a thermometer
- Can vary the open time by adding urea
- If you want to make liquid glue, add 1 part salt
- Can make your own hide glue if you want

Liquid Hide Glue

- Comes as 2 major brands: Old Brown or Franklin
- Slightly less strong as with granules, but stronger than the wood
- Slightly less tack than granules

Unique Advantages of hide glue

- Reversible, even 100 yrs later
- Used for fine furniture and musical instruments
- Will Bond to itself
- Rub Joints (no clamping)
- Hammer Veneering (hot hide glue)
- Stainable making for easy finishing; can be used as grain filler
- Great for Inlays
- Will not creep
- Granules keep indefinitely, glue always fresh

Disadvantages

- Not waterproof
- Hot hide glue somewhat messy, not ready instantly
- Not available locally