

# **THE QUEST BY COUNTRY VIEW & LIFESTYLE WOODWORKERS TO PROTECT YOUR HOME ENVIRONMENT**

Environmental concerns for the welfare of the American family continue to increase in importance as many consumers sort through the abundant selection of both furniture & furnishings being offered for household use in today's marketplace.

New laws continue to be enacted for broader consumer protection. As a result, consumers are more cognizant of the emerging concerns for health & safety which factors into their decision at the time of purchase.

These concerns are especially prevalent with the trend toward the utilization of composites in building materials, the increased use of synthetic vs. natural fibers, the universal appeal of hardwood floors, expanded millwork & cabinetry, and the fact that many off shore products provided by foreign manufacturers are not constrained by environmental regulations in a manner that is equitable to that which domestic producers are subjected.

For a quarter of a century because of the push to promote bargain-basement prices, imported commodities ranging from pharmaceuticals & food products to furniture have been given consideration. The consequences from the questionable quality coupled with the high percentage of rejects & returns from Pacific Rim producers are now significantly impacting consumer confidence in off-shore products.

This is compounded by increased energy & transportation costs, the reduced buying power of the U.S. dollar, the growing appetite & demand for consumer products by the populace of the economically emerging nations.

To continue doing business with products originating from the Orient, domestic buyers have a few key options.

They may find a cheaper source & risk quality issues. They may continue with their current suppliers & request that they take something out of the product. The 3<sup>rd</sup> option is to improve quality, improve value & be willing to compete head-to-head on a level playing field with domestic products.

By adding benefits, through increased functionality & longevity, the household product is enhanced in the mind of the consumer. For many generations this has been the marketing appeal of American manufacturers of solid hardwood quality furniture.

The economic merit of this marketing & manufacturing philosophy is substantiated by the fact that homeowners replace low-cost furniture with greater frequency than quality products. As a result, furniture & furnishings, such as solid hardwood products last longer, look nicer, provide greater comfort and satisfaction during use and in the end analysis cost less over the lifetime of the product.

The growing focus of health concerns with building products has continued to surface with the announcement by the International Agency for Research on Cancer, a division of the World Health Organization, which reported that much North American & imported hardwood plywood using urea formaldehyde is classified as "carcinogenic to humans".

Headed by proactive & progressive leadership the principals of Hardwood Lifestyle Collections are already utilizing cost-competitive low formaldehyde hardwood plywood to satisfy the concerns of indoor air quality for builders of private properties & meet the specifications of the architectural community to maintain safe air environments in commercial enterprises.

Roy Miller, President of the Hardwood Furniture Builders Guild & Country View Woodworking advised "our goals are both attainable & sustainable. Simply stated, using these materials will insure that building products & furnishings marketed by this visionary group are compliant with the California Air Resources Board (CARB) standards which to meet formaldehyde emission limits."

Fortunately, many responsible American skilled craftsmen such as the Hardwood Lifestyle consortium of manufacturers are policing their policies to vigorously support & embrace green concepts without the need to invite governmental supervision.

Mr. Miller said: "our continued commitment to concerns for the American consumer is further evidenced by the quality of finishes we utilize".

#### **OUR FINISHES ARE LOW VOC AND HAPS COMPLIANT.**

The term HAPS refers to hazardous air pollutants. Solvents which are commonly used in stains & finishes are xylene, methyl ethyl ketone (MEK), toluene and methyl isobutyl ketone (MIBK). These products evaporate quickly into the air. They are considered by the U.S. EPA to be hazardous air pollutants (HAPS) that can cause adverse health effects.

In addition, these chemicals are classified as Volatile Organic Compounds that react with sunlight to form ground level ozone. They can affect human respiratory functions, especially people with asthma. Breathing these solvents can cause headaches, dizziness, fatigue, nausea & other symptoms. Long term effects damage lungs & soft tissues.

Mr. Miller further advised: "We have diligently researched finishes to assiduously avoid products that do not meet the standards that afford maximum protection to our workers, retailers, homeowners & their families. Our finishes are Kitchen Cabinet and Manufacturers Association (KCMA) approved & FDA certified. Imported products containing lead have on numerous occasions failed these standards, posing a risk to the health of American consumers."

Unfortunately, some domestic producers & many manufacturers of goods that are imported are not required & do not adhere to the rigid guidelines that we follow.

Many variables are factored into the application process. They range from viscosity, the number of coats applied, the tip size, air pressure, temperature, the skill and experience of the applicator.

Normally -- the thicker the finish or film, the better it protects the wood from scratches & water vapor. However with most protective coatings – there are practical limits to film thickness, because if the finish is too thick, it may develop cracks as a result of expansion and/or contraction of the wood beneath the film.

Finishes can be divided into two groups: penetrating & film building products.

Penetrating finishes generally do not cure hard. Film finishes cure hard and can be built up to the desired thicknesses.

The most common film finishes used in woodworking are:

1. Post Catalyzed Finishes (conversion varnish & catalyzed lacquer)
2. Alkyd Varnish
3. Shellac
4. Nitro Cellulose Lacquer
5. Water based coatings

We believe the finest top coat finish available is Post Catalyzed Conversion Varnish.

All finishes can be defined by the manner in which they cure.

<u>Type &amp; cure</u>	<u>Film classification</u>
1... Reactive	a. conversion (post conversion varnish & catalyzed lacquer) b. moisture cured (polyurethane)
2. Evaporative	c. lacquer d. shellac
3. Coalescing	e. water base coatings

**VARNISH & CONVERSION FINISHES** cure by chemical reaction within the finish after most of the thinner has evaporated. Moisture cure products harden by reacting with the humidity and/or oxygen in the air. Conversion finish cures when a catalyst is added.

**SHELLAC & LACQUER** cure as a result of the evaporation of their solvents. Alcohol is the solvent used in shellac. Lacquer thinner is the solvent in lacquer.

**WATER BASE PRODUCTS** cure when the water evaporates, the solid droplets come together & unite or coalesce.

## EVAPORATIVE FINISHES

In an evaporative finish such as shellac or lacquer when the solvent dries out, the microscopic filaments of solid resin are not bonded together. The filaments form a continuous film, but if solvent is reintroduced, the microscopic ribbons of hardened resin soften and separate. The result is your finish either softens, becomes thin & dulls or melts & dissolves.

Evaporative finishes do not crosslink. They are more readily scratched, penetrated and readily redissolve when exposed to their solvent base. Sharp objects, heat, many solvents & chemicals break through the film & divide the resin molecules. The larger molecules are easier for water & water vapor to penetrate the porous hygroscopic cells of the wood with resulting swelling & shrinkage.

Alcohol, acids & finger nail polish are extremely damaging to evaporative finishes, especially when used on table, desk or dresser tops, because of the propensity to see damage more readily on broad, flat surfaces.

## REACTIVE FINISHES

Catalyst curing finishes are called conversion or reactive finishes.

Reactive finishes cure by reacting with the water vapor in the atmosphere or when a chemical catalyst is introduced.

The resin molecules in conversion varnishes used by Country View Woodworking crosslink providing a finish that is far more resistant to wear, heat, scratches, solvents, acids & alkalis. The result is a film that is harder, less penetratable.

## WATER BASE FINISHES

Coalescing or water base coating reduce emissions but are inclined to cause the grain in the wood to raise.

Coalescing finishes crosslink in batches forming large droplets, but the droplets which join together do not crosslink. Water base coatings do resist scratching & redissolving but because of the large size of the molecular droplets they can be penetrated by liquids & water vapor at the open spaces where they join together. For that reason we say water coatings can "breathe".

Roy Miller suggested: "We consider the conversion varnishes to be 'state-of-the-art finishes.' We use them exclusively on Country View furniture & products that we finish for numerous furniture producers in our immediate geographical locale. As a result of the acceptance within the industry & the recognition of the added value for consumers, we have doubled the production capacity of our finish shop for future growth."

On occasion manufacturers trade quality for cost. It's difficult to visually differentiate between types of finishes used by the manufacturer unless specifically stated in their literature or advised by the dealer's sales person. Unfortunately consumers frequently become aware of the finish on their furniture through daily usage, as evidenced by white water rings, cracking, chipping, dulling or staining.

To determine how coatings can be tested, contact a customer service consultant at Country View Woodworking by calling (877) – 226 – 2691

Or write us at: Customer Service Consultant  
c/o Country View Woodworking  
7777 SR 241  
Millersburg, Ohio 44654

Or call your field sales representative:

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The typical American consumer is on the "horns of a dilemma". Almost without exception, the majority of American homeowners want the best quality for the best price. However, astute buyers recognize that the lowest price may not be the best value. Your best insurance when purchasing a product is to work with sales personnel that have strong product knowledge and are able to provide comparative analysis.

Few things can be unconditionally guaranteed, but the best assurance of quality and long-term consumer satisfaction is achieved through gaining in-depth product knowledge & participating in the current trend **TO BUY AMERICAN BY AMERICANS.**