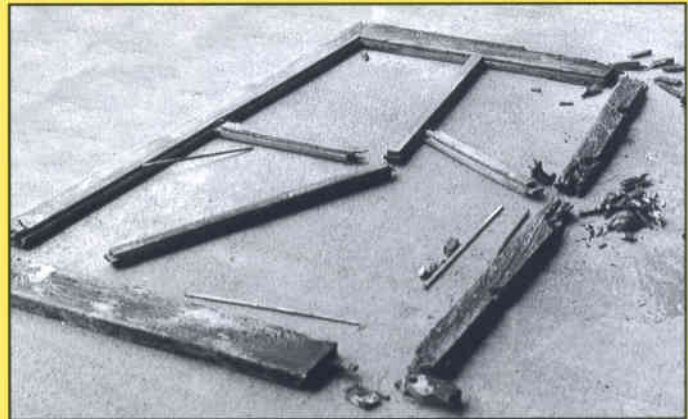
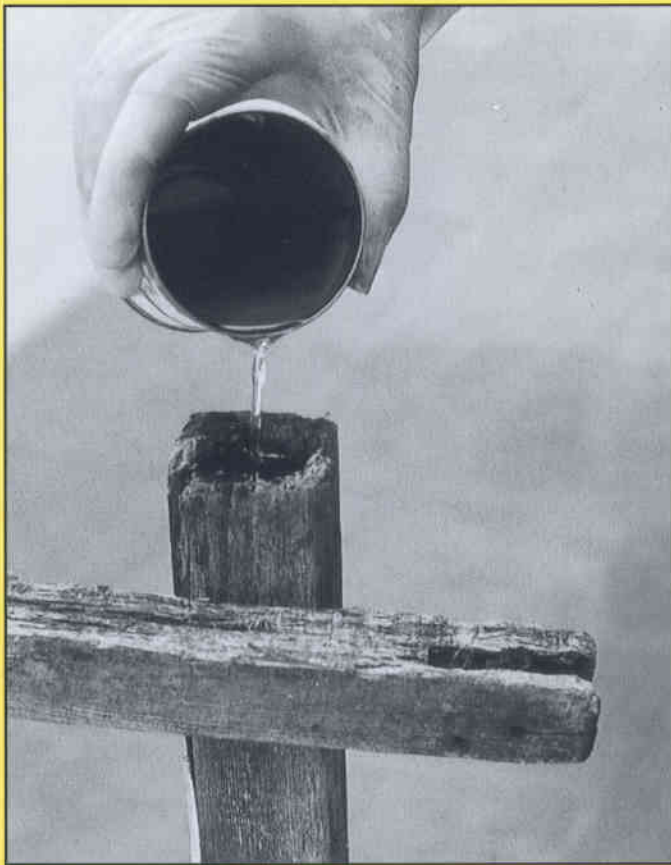


Unprecedented Wood Restoration System

The New Standard To Restore & Replace Wood

Specified by the U.S. Government, national restoration centers, museums, architects and other professionals, LiquidWood and WoodEpoxy represent the greatest advance ever in wood restoration history. They give new life to rotted, severely damaged windows, columns, frames, structural and decorative wood components, broken furniture. They are the only hope for parts that cannot be replaced because of size, shape or artistic reasons. The objects restored with LiquidWood and WoodEpoxy are not merely museum pieces or delicate memorabilia, but fully functional parts often stronger and far more durable than the original.



Hopeless without WoodEpoxy



Half was left unpainted to show WoodEpoxy

LiquidWood®

Liquid wood consolidant. Reinforces, rebuilds and waterproofs wood by hardening after penetrating. Regenerates rotted windowsills, frames, structural and decorative parts, furniture, boats, columns, floors. Primer for WoodEpoxy.

WoodEpoxy®

Structural adhesive putty. Most versatile, high-strength, no-shrink adhesive paste to fill, repair and replace wood and other materials in structures, walls, floors, furniture, sculptures. A new standard in workshops, plants, buildings, museums, shipyards and homes.



ABATRON, INC.

ISO 9001:2000 Registered

LiquidWood®

Wood Consolidation with LiquidWood

Consolidation with LiquidWood is the restoration and reinforcement of wood by impregnation with a special resin that hardens after penetrating.

LiquidWood excels in:

- penetration
- adhesion
- water resistance
- permanence
- versatility
- wetting properties
- dimensional stability
- structural strength
- transparency
- ease of handling and use

With LiquidWood, a piece of deteriorated wood that would crumble under finger pressure can be impregnated and restored to rigidity, durability, water and weather resistance superior to that of the original wood.

LiquidWood consists of 2 clear liquids: the resin (A), and the hardener (B). When A and B are mixed by simple stirring, a blend is formed with unusual properties to impregnate and restore wood and other porous masses.

LiquidWood is brushed or poured on the surface where it must be absorbed. The more porous the wood, the more resin it will absorb, and the greater the improvement.

LiquidWood impregnates the wood fibers and hardens into a water-resistant, distortion-free, high-strength mass in hours or minutes. The hardened mass can be sawed, planed, routed, carved, drilled, sanded, glued and painted.

LiquidWood is also a primer and surface consolidant on rotted and porous surfaces, for subsequent applications of WoodEpoxy, paints or glues. For sound surfaces that require no consolidation, PrimKote primer is mostly used. The preparation with LiquidWood creates a proper interface on porous masses, a strong and receptive surface for adhesion on most areas. LiquidWood is designed to impregnate and reinforce fibers and other absorbent masses.

That is: holes, cracks or other voids are best filled with WoodEpoxy, after impregnating and priming the existing fibers with LiquidWood. The combination of these two products offers superb results unequalled by any other restoration material.

TYPICAL APPLICATIONS: Rotted, dried-out or spongy windowsills — thresholds — window and door frames — columns — posts — stair steps — railings — balustrades — indoor and outdoor furniture — porches — gazebos — stages — platforms — balconies — countertops — cornices — capitals — entablatures — structural and decorative components — walls — moldings — doors — shutters — artifacts — archaeological and art restoration — protective impregnation.



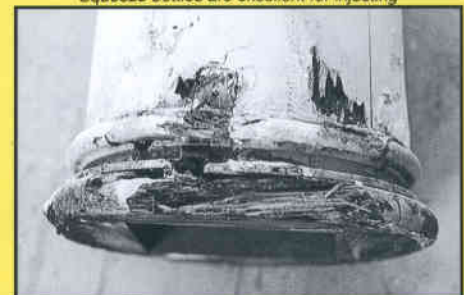
Pouring or brushing is sufficient where absorption is easy



Drilling allows deeper penetration



Squeeze bottles are excellent for injecting



Only LiquidWood plus WoodEpoxy could save this column



WoodEpox[®]

Wood Repair and Replacement with WoodEpox

Whereas LiquidWood is a liquid for penetration and impregnation, WoodEpox is a paste for filling, adding and building up.

WoodEpox is a light adhesive putty system, consisting of 2 components: resin paste (A) and hardener paste (B). When A and B are mixed, the blend hardens within 1-2 hours into a lighter-than-water non-shrinking, tough adhesive mass with high dimensional stability, chemical, water, heat and weather resistance. Its appearance is a light neutral color that can be changed, while mixing, with stains, dyes or pigments. It has a **no-slump paste consistency** that allows it to be applied like a putty to fill gaps, holes, or to build up virtually any thickness and shape.

WoodEpox offers unique properties:

- It bonds permanently with high strength to most rigid surfaces.
- It fills cracks, holes and voids of any size without the shrinking and crumbling typical of common wood fillers.
- It can replace or add missing or new sections in window frames and sills, furniture, sculptures, structural and decorative components indoors and outdoors.
- Because of its strength and durability, it is as different from common wood fillers as a permanent solution from temporary remedies.
- It can be sawed, nailed, planed, sanded and machined like wood.

Large and small holes or cracks, missing corners, edges, depressions can be filled, replaced or restored by adding the WoodEpox paste by hand, spatula, knife or trowel. The material becomes a permanent part of the surface to which it is applied. It bonds equally well to wood, ceramics, concrete, metal, glass, fiberglass and most rigid materials.

Plastic film, masking tape, contact paper, wax-coated plywood, other sheets or shapes can be used to level or mold the freshly applied mass until it hardens. Furthermore, unshaped masses can be easily carved, cut, sawed, planed and otherwise worked after the material has hardened.

WoodEpox can also be sculpted by hand into any shape. Besides the obvious use for sculptors, another interesting application is shaping handles, knobs, larger-sized or modified handling devices for handicapped people. When the shaped WoodEpox is applied to the intended surface, it bonds permanently as it hardens.

TYPICAL APPLICATIONS: damaged, cracked or broken windowsills — thresholds — window and door frames — columns — posts — stair steps — railings — balustrades — indoor and outdoor furniture — porches — gazebos — stages — platforms — balconies — countertops — capitals — entablatures — structural and decorative components — walls — moldings — doors — shutters — artifacts — archaeological and art restorations — sculptures — protective filling and resurfacing — models — patterns — mock-ups — handles — knobs — all kinds of shapes.

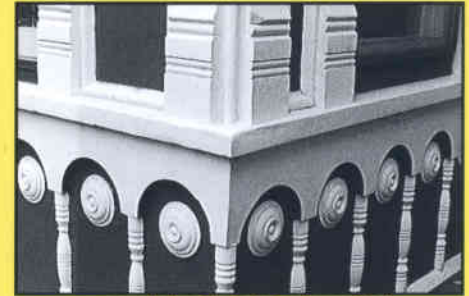
Most of the same application list can be used for LiquidWood and WoodEpox because the two materials complement each other ideally.



This rotted — and irreplaceable — woodwork ...



... can be easily and permanently restored ...



... sanded, nailed, stained or painted.



10" rotted bottoms of these load-bearing columns ...



... were completely sawed off and replaced with ...



... WoodEpox, which, outperforms and outlasts wood.

Application Methods for LiquidWood & WoodEpoxy

COMPOSITION. Both LiquidWood and WoodEpoxy consist of one resin portion (A) and one hardener portion (B), packaged in separate containers. They harden only when A and B are mixed, whereas conventional paints or wood fillers must contain solvents to be usable, with consequent shrinkage and poor performance.

PREPARATION. Surfaces for LiquidWood or WoodEpoxy must be stripped, cleaned and dried by washing, degreasing, scraping, sanding or sandblasting. The best wood preparation for WoodEpoxy is impregnating and coating the cleaned surface with LiquidWood.

MIXING. Equal volumes of A and B are mixed in a deeper-than-wide can or other disposable container (not on a flat surface or tray). As mixing is easy, anything, from a stick to a paint stirrer, can be used for it.

The **HARDENING** process begins after mixing A and B. The time a pint of mixed A/B blend remains workable (before hardening) in the mixing container is called pot life. The material is applied during the pot life period.

An **INDUCTION PERIOD** (10-20 minutes permanence of the A/B blend in the deep mixing container, after mixing, before applying) may be necessary in difficult conditions, like high-relative-humidity or cool (under 15°C or 59°F) environment, to avoid tackiness of exposed layers. Special hardeners are also available for application in cold weather and underwater.

The larger the mass the faster it hardens, as its bulk retains the reaction heat which speeds the process. This is the opposite of what happens with paints or conventional wood fillers, which harden from solvent evaporation.

Heat accelerates hardening; cold retards it. LiquidWood or WoodEpoxy can harden in 1-3 hours at room temperature, or in a few minutes with heating.

CURING is the total reaction that

The information in this brochure is based on laboratory and field tests, but no guarantee is offered or implied, as applications are beyond our control. The user is urged to try the products and methods above described before adopting them.

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continues after hardening and optimizes best properties. It may last 1-3 weeks at room temperature, or a few hours with heating.

PRIMING is unnecessary for LiquidWood. On the other hand, LiquidWood is the best primer for WoodEpoxy on surfaces of areas that need consolidation. A more specialized primer, like PrimKote, is the preferred choice for sound, compact wood, metal and other rigid materials. For best results, WoodEpoxy should be applied while LiquidWood or other solventless primer is still hardening, or after PrimKote's solvent has evaporated, or within 1-3 days after either primer.

LiquidWood can be sprayed, brushed, rolled or poured. It can also be poured into holes drilled in the porous mass. As the resin spreads, its hardening is slowed down to hours, because the reaction heat is absorbed by the fibers. This allows plenty of time for penetration.

If WoodEpoxy is not available, LiquidWood-impregnated sawdust, paper, burlap, cotton or other fibers can be stuffed into the holes or cracks to fill them. The resulting mass can approach the wood texture and workability to a surprising degree. Even higher strength is obtained by alternating layers of LiquidWood and fiberglass cloth.

These combinations can build new sections, extend shapes or structural elements, thicken and reinforce existing surfaces. Even laminations of LiquidWood and newspapers provide surprising reinforcement for thin panels in furniture or other structures.

If LiquidWood is to be used for heavy structural purposes, special instructions may be available from our technical staff.

WoodEpoxy is applied with trowel, putty knife or similar tools. It can also be shaped by hand, like modeling clay.

The shaped putty bonds equally well to wood, ceramics, concrete, metal, glass, fiberglass and most rigid materials. For best adhesion, the surface should be

coarse-sanded or roughened.

WoodEpoxy is ideal to trowel or sculpt missing parts, to repair window frames, furniture, tables, steps, doors or to fill holes and other cavities of any size.

It can be easily colored with sawdust, dry pigments and compatible stains.

WoodEpoxy is easy to carve, saw, plane, nail, tap, drill.

Nails, wire, rods or other reinforcements can be inserted and embedded for strength.

New WoodEpoxy can be added over hardened WoodEpoxy, where needed, as it bonds well to itself, within 2-7 days, or with a primer like PrimKote long after hardening.

WoodEpoxy/LiquidWood blends are used for intermediate results. The WoodEpoxy and LiquidWood A/B-blends can be added to each other in any ratio for any desired consistency.

Thinning, diluting and cleaning is done with our ABOSOLV or other compatible solvents. Tools and brushes must be washed with ABOSOLV before the epoxy hardens on them.

Hardened material is removed with special solvents (our CLEAR-STRIP) or scraped away while softened by high heat (250° F or higher), or burned. Working surfaces should be protected with plastic films, newspapers or similar disposable materials.

Skin, eye and respiratory protection is assured with gloves, goggles, aprons, good ventilation, masks and other precautions normally used with chemicals. Soap and water or waterless cleanser are used to wash the skin.

VARIATIONS: Numerous versions of the above products are available and being developed for special purposes, like: extremely high or low temperatures, viscosities, reaction speeds, chemical or other properties, freezing-weather and underwater applications, as well as matches for virtually any product.

