

# LIGNU® WOOD RESTORATION SPECIFICATIONS

## LIGNU IMPREGNATING RESIN SPECIFICATION

### PART 0. PREREQUISITE

Treatment of wood which performs a structural function shall be overseen by an architect or structural engineer, who shall ensure and certify that the actual wood remaining (before the commencement of restoration) is adequate to support its load. The Lignu products shall only be specified for restoration of cosmetic properties of wood, and to help the wood resist further deterioration.

### PART 1. GENERAL

Gross deterioration of the wood is present when portions of the wood element are missing, or some of the wood in the area being examined is of a soft, crumbly texture, easily removable by the bare fingers. Behind an area of gross deterioration will be found wood having high porosity and somewhat better mechanical properties, and behind that will be found wood of comparatively better mechanical properties and less porosity. Eventually, sound wood which is consistent in its porosity and mechanical properties is reached.

Moderate deterioration has a porosity in any particular dimension which is abnormally higher than that of wood recognized by an architect or structural engineer as being mechanically sound.

Since porosity abnormally different from sound wood is an observable characteristic of deteriorated wood, it follows that a product recognized as effective in penetrating the porosity of deteriorated wood may be used to recognize the presence of deteriorated wood when the extent of deterioration is not obvious, as well as to treat the deteriorated wood itself.

### PART 2. PRODUCTS

#### Lignu Impregnating Resin.

### PART 3. EXECUTION

**Preparation:** Elements which are or appear to be structural in nature or function may be inspected by an architect or structural engineer prior to commencement of any work by Lignu Restoration personnel. Wood which is sufficiently deteriorated as to be not reliable as a substrate for the Lignu restoration technology (in the professional judgement of personnel trained in the Lignu restoration technology), shall be removed by such trained personnel.

Before any further work is done, the wood element shall be inspected by an architect or structural engineer. By inspection, tests or measurements satisfactory to the architect or structural engineer, it shall be determined that the remaining portion of the wood element is sufficient to support its load, based on appropriate standards. Only after such validation may execution continue.

**Application:** The mark **Lignu** is a registered trademark. All Lignu products are offered for use only under trademark law.

The Lignu Technology Institute of Wood Restoration licenses the right to buy and use the Lignu products.

The Lignu Training Institute trains Technicians and Inspectors as Trained Applicators in the Lignu technology of Wood Restoration.

A business entity providing restoration services embodying the Lignu technology and/or the Lignu products, whether an individual, a company or a corporation, must be licensed by the Lignu Technology Institute of Wood Restoration before it may provide or even offer to provide such services.

The act of restoration, using the Lignu products and/or the Lignu Technology, may only be done or supervised by a person trained in the Lignu Technology of Wood Restoration by the Lignu Training Institute. Such a trained person must be continuously present on the job, from start to finish.

The work area must be protected from rain, snow or condensation from the beginning of any restoration work until final painting.

Apply Lignu Impregnating Resin.

#### **Trained Applicators and Licensed Restorers:**

Consult the Lignu Technology Institute of Wood Restoration for trained personnel or Licensed Restorers.

**PART 4-A. LICENSED RESTORERS**

INQUIRE OF

**The Lignu Technology Institute of Wood Restoration**

phone: 510-237-5986  
 fax: 510-232-9921  
 email: info@lignu.com  
 web: www.lignu.com

**PART 4-B. MANUFACTURERS**

**Lignu Products a d.b.a. of  
 Smith & Co. Restoration Products, inc.,  
 Richmond, CA**

phone: 1-800-234-0330 fax: 1-510-232-9921  
 email: smi3th@smithandcompany.org  
 web: www.smithandcompany.org

**LIGNU FILLER SPECIFICATION****PART 1. GENERAL**

The filler shall be a product proven effective in the restoration of deteriorated wood, or its improved versions.

**PART 2. PRODUCTS**

There are different Lignu fillers with different properties for different application circumstances. Every application circumstance is different. Therefore, the particular Lignu filler or fillers will be selected by the trained applicator in the course of doing the restoration work.

**PART 3. EXECUTION**

**Preparation:** The surface of any region to be filled shall be first treated with Lignu Impregnating Resin in accordance with the specification for that product.

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The act of restoration, using the Lignu products and/or the Lignu Technology, may only be done or supervised by a person trained in the Lignu Technology of Wood Restoration by the Lignu Training Institute. Such a trained person must be continuously present on the job, from start to finish.

The work area must be protected from rain, snow or condensation from the beginning of any restoration work until final painting.

Fill missing portions of wood with the correct Lignu filler(s).

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## LIGNU PRIMER SPECIFICATION

### PART 1. GENERAL

In order to obtain a good bond between wood and any paint or adhesive, the fibers on the surface of the wood must be strongly bonded to each other and to the adhesive or coating. The surface of wood is microscopically rough, with many surface fibers loosely attached to the bulk of the wood underneath. Glues and the liquid portion of paints can soak into porous wood surfaces. This can produce a paint with most of the pigment on the surface and most of the resin soaked into the wood, and such a resin-starved coating will soon fail. Therefore a sealer is important in order to obtain good adhesion between wood and paints.

The Lignu Impregnating Resin is formulated to be an effective sealer-primer in this context.

If paint is applied over a surface to which Lignu Impregnating Resin was previously applied, but before the Lignu Impregnating Resin is (roughly) half-cured, the second material proceeds to cure first, and the resin film of the Lignu Impregnating Resin cures last, gluing down the second material.

The Lignu Impregnating Resin is formulated to be only partly-cured the next day, so that paint (preferably an oil-base primer) can be glued to the wood by the epoxy adhesive component of the Lignu Impregnating Resin, which is why it is such an effective adhesion-promoting primer.

The resins used in Lignu products are substantially derived from wood itself because these particular resins, when they cure, will have a toughness and flexibility that is comparable to wood.

### PART 2. PRODUCTS

Lignu Impregnating Resin

### PART 3. EXECUTION

**Preparation:** The surface of restored wood where Lignu fillers have been applied shall be sanded to a uniform smoothness, with grit no finer than 60.

Pressure-treated wood should be weathered for 6 months (to allow environmental degradation of water-repellent treatments) and then sanded.

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The act of restoration, using the Lignu products and/or the Lignu Technology, may only be done or supervised by a person trained in the Lignu Technology of Wood Restoration by the Lignu Training Institute. Such a trained person must be continuously present on the job from start to finish.

It is imperative that the surface being treated be protected from rain, snow or condensation before, during and after this procedure, and until the final coat of paint has fully dried and cured.

Apply Lignu Impregnating Resin.

The day after application of the Lignu Impregnating Resin, an oil-base primer, such as Benjamin Moore #176-00 exterior oil primer or equal, shall be applied, followed by an appropriate topcoat.

Two-component polyurethanes may be applied directly over the Lignu Impregnating Resin; consult the manufacturer for special application procedures.

#### **Trained Applicators and Licensed Restorers:**

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