SPECIFICATION

SHOU SUGI BAN SURFACE STABILIZER

PART 0. PREREQUISITE

Shou Sugi Ban surface stabilization products shall only be used to stabilize the surface char and to minimize soot-transfer, not for any structural requirement. 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 after any charring treatment is adequate to support its load. .

PART 1. GENERAL

The treatment of wood by charring, known as Shou Sugi Ban or Yakisugi, is done to improve weather and insect resistance in exterior applications and for the unique appearance that may be obtained, furnishing an aesthetic component to both interior and exterior architectural design.

Mechanically, a layer of charcoal whose visual texture can reflect both the grain pattern of the particular wood species and any mechanical pretreatment, is created. This charcoal is usually relatively soft, may easily flake or crumble on slight impact and transfer black carbon soot if touched or clothing brushed against it.

In exterior applications, seasonal weather cycles bring variations in atmospheric humidity which cause a natural expansion and contraction of the underlying wood. Since the charcoal layer is relatively insensitive to variations in humidity, differential stress results. This may cause flaking of some char, altering the original aesthetic component. In interior applications, physical contact may cause soot-transfer to clothing or skin, may result in physical degradation of the char, alteration or loss of its aesthetic component and a carbon-transfer difficult to remove from clothing. These are known liabilities of this treatment.

Since the carbon components of the char are only weakly bonded to each other, it follows that a product recognized as effective in penetrating the porosity of such char and bonding those carbon components to each other and to the underlying wood substrate may be used to mitigate the liabilities of charred wood. Since the char is inherently both brittle and porous, it follows that a product that confers a resilience by its impregnation process while leaving an inherent porosity may be used to mitigate flaking due to impact-damage by permitting volume compression resulting in only a dent from a slight impact.

PART 2. PRODUCTS

Smith's Original and Genuine Shou Sugi Ban Surface Stabilizer™

PART 3. EXECUTION

Preparation: Elements to be treated may be installed prior to treatment, or treated after installation.

New installations of elements to be treated have the consideration that if the charred wood elements are pretreated by the supplier or on-site prior to installation, the surface mechanical properties are greatly improved, minimizing potential loss of aesthetic quality due to handling by the contractor's personnel in the course of the installation activity.

Application:

The act of application and treatment, using the Smith & Co. products and technology, may only be done or supervised by a person who has studied the Smith & Co. literature and demonstrated an ability to apply the Smith & Co. products correctly. Such a person must be continuously present on the job, from start to finish.

The work area must be protected from rain, snow, condensation, temperature or humidity extremes, from the beginning of any application until final drying and curing.

Apply Smith's Original and Genuine Shou Sugi Ban Surface Stabilizer according to manufacturer's instructions.

PART 4. MANUFACTURERS

Smith & Co. Restoration Products, inc.,
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