

## **Instructions for use of Silvanolin®**

### Purpose of use

We recommend using Silvanolin protective agent for permanent and effective protection of wood intended for outdoor use (roof constructions, log cabins, garden furniture, pergolas, playgrounds, fences, etc.). After 48 hours, all the active ingredients of the preparation are bound into the structure of wood and cannot be washed off any more. Silvanolin is therefore also suitable for protecting wood exposed to the harshest environments and weather conditions (rain, snow, contact with fresh or sea water, etc.).

### Wood selection

For production of wooden products/objects we select healthy wood without rot or insect damage. We use Silvanolin on finished elements, already manufactured and processed products.

### Wood humidity

Prior to protection process, wood has to be properly dried. Initial optimal wood humidity needs to be between 15% and 20%. Before vacuum-pressure impregnation the humidity has to be lower than 30%, otherwise the preservative is unable to penetrate into the wood.

### Temperature

Silvanolin must be applied at temperatures between 5 and 35 degrees Celsius. At low temperatures, active ingredients may not function properly.

### Security procedures

Silvanolin is suitable for all types of procedures of wood protection from coating, ~~spraying~~, pouring, and diving, to vacuum-pressure impregnation.

### Consumption

With 1 kg of Silvanolin from 4 to 5 m<sup>2</sup> of wood surface can be treated, depending on the type of wood, surface pretreatment and way of application of protective preparation. This intake is usually achieved by double coating or a single 15-minute immersion. Impregnation with coating or short diving is particularly recommended when protecting the wood which is not exposed to precipitation (e.g. covered roof structure, projecting roofs etc.). To protect the facade cladding, log cabins, balcony and garden fences, outdoor playgrounds and garden furniture we recommend at least a 24-hour dive of wood into preservative, whereby a higher uptake of active means of protection penetrate into the wood at least 5 mm deep. For protection of wood which we intend to use in permanent contact with water (fresh or sea) or soil, we need to use the vacuum-pressure impregnation process. **IMPORTANT:** Silvanolin preparation should not be diluted or mixed with any other protection products, as that can significantly reduce its effectiveness.

### Drying time

Silvanolin quickly bounds into the wood and does not wash off. The binding is completed within 48 hours. Recommended drying time between multiple applications of preservative with process of coating is at least 3 hours. Before applying further procedures (e.g. gluing) we need to wait at least 24 - 96 hours. If the wood is being

protected by procedures of dipping or by vacuum-pressure the binding of protective substances of Silvanolin into the wood is already completed before the wood is dry. Drying time of impregnated wood is longer as higher quantities of water enter the wood during impregnation process.

#### Color of protected timber

During the process of protection with Silvanolin the wood colors pastel green. The final shade of wood depends on the type of wood and the quantity of the product applied on/into the wood. When diving oak, chestnut and acacia wood into protective agents, brown stains can appear, but that does not affect the quality of protection. Protected wood that is exposed to sunlight (UV rays), eventually turns gray. Graying of the wood is a natural process that does not affect the quality or lifespan of the wooden product/object. If you want to have protected wood stained or prevent the graying of the surface, we recommend using Silvanol stain B glazing. Before applying Silvanol stain B, we have to make sure, that the wood already protected with the base protective agent Silvanolin, is sufficiently dry. If using other translucent coatings, we must first check the compatibility of the chosen glazing and protective agent. Surface coatings do consolidate and dry on already protected wood a little bit longer.

#### The use of protected wood

Wood that has been protected with Silvanolin may be glued. When installing/manufacturing finished products/facilities, we discourage subsequent woodworking, since that can remove the protective layer of preservative on the wood.

#### Combustibility of protected wood

Protective agent Silvanolin does not increase the combustibility of protected wood. On the contrary, it protects the wood - due to the presence of boron compounds that slightly harden the ignition and inhibit burning of the protected wood.

#### Safety at Work

Special fire-protection measures are not necessary. When impregnating the wood we use personal protective equipment (clothing, gloves, eye protection). At temperatures of about 0 degrees Celsius, we do not recommend using preservative on existing roof structures, as a threat of icy surface and therefor risk for workers exists.

#### Storage and expiration date

Store Silvanolin in original sealed packaging, inaccessible to children and animals. Expiration date is unlimited.

#### Cleaning tools

After work we wash tools with water and detergent.