

# TOPHYBRID

#### PRODUCT IDENTIFICATION

Belinka Tophybrid

### **DESCRIPTION**

Tophybrid is a woodstain used to protect wood against weathering. It gives wood a decorative colour and enhances its appearance. It is suitable for both outdoor and indoor use.

# **COMPOSITION**

Urethane modified alkyd resin, water-repellent substances, light- and weather-resistant pigments.

#### **CHARACTERISTICS**

#### Tophybrid:

- is resistant to weathering,
- protects wood from UV rays,
- >> keeps the natural wood grain visible,
- dries quickly and enables the application of several coats in one day,
- >> gives a silky gloss finish,
- enables easy renovation.

#### AREA OF APPLICATION

This product is used to protect all types of wood surfaces, both outdoors and indoors. The woodstain is not suitable for walkable surfaces or surfaces where water is collecting.

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### **COLOUR SHADES**

Tophybrid is produced in standard colour shades according to the colour chart.

Colour charts are made on specially selected spruce wood which has received highquality treatment. As wood is a natural material, colour shades of woodstain can differ slightly on wood of different quality. On other types of wood, shades can differ considerably due to the substrate's influence, which is why we always recommend applying a preliminary test coat on a small sample of wood.

The colour shade on wood also depends on the preliminary treatment of wood and the number of coats. On rough, poorly sanded wood surfaces, the colour is more intense than on smooth surfaces. Apply several coats to achieve a more intense and fuller colour.

Individual colour shades can be mixed in order to further broaden the colour scale. Test the colour mixtures on a small wooden board that has been treated the same way as the wood intended for coating.

#### SUBSTRATE PREPARATION

New wood must be dry, clean and protected with Belinka Impregnant if coating outdoors or in humid spaces. Belinka Belles can also be used instead of Belinka Impregnant. In this case, it takes longer, usually 3 days, for Belles to dry sufficiently. In dry spaces, protection with Belinka Impregnant is not required.

We cannot guarantee the quality of the coating when impregnation agents of other manufacturers are used.

When renovating old woodstain coatings, first clean the dirt and loose particles on the surface, then gently sand the surface and remove any dust.

When coating old top coats and lacquers, these must be removed completely, after which the same procedure is to be applied as with new wood.





# **APPLICATION METHOD**

Mix the woodstain well before use. Apply two or three coats with a brush or roller. Use tools made of stainless material.

Thinning is generally not required.

While working and during drying, the temperature of the substrate, the paint and the ambient should be above 10 °C, but no less than 5 °C. Relative air humidity should be below 80%. Avoid coating in strong sunlight. The coating dries quickly, especially at high temperatures and low air humidity.

Quick drying can cause blotchy stains to appear on the surface. This happens if a fresh coat is applied over a coat that is only partly dry. A double layer of paint is formed on this area, which appears as a dark spot. Any kind of remedial action on a coating that is not yet dry, but partially already dried out, can cause a blotchy appearance.

Therefore, special attention is to be paid when coating large surfaces and elements with embossed surfaces.

In such cases, coat the large flat areas first, then the edges, and correct any defects as they appear (e.g. flow marks). For large flat areas (e.g. exterior doors) we recommend using a microfiber roller. Rollers made of rubber foam or velour are not suitable.

If using a roller, edges and slots must be continually corrected with a brush.

Wooden cladding should be coated lengthwise on each individual board separately, from top to bottom. In each case, wood should be coated along the wood grain.

Two coats are sufficient to protect the wood indoors. Apply a third coat to achieve a fuller appearance, but be aware that this will make the colour shade darker. We recommend applying three coats on wood exposed to weathering.

When using a brush or roller, make sure to spread the coating well and evenly, by using the prescribed quantity per m2.

#### **DRYING**

The coating dries within 4 - 6 hours under normal conditions (20 °C, 65 % relative air humidity).





At lower temperatures and/or very high air humidity, it can take longer for the coating to dry. At higher temperatures and very low air humidity, the drying time is decreased. The next layer can only be applied when the first is completely dry.

At a time when the coating has not yet dried up, avoid direct contact with water.

Be particularly careful to prevent the collection of water on horizontal coating surfaces. In such cases, water drops cause the formation of shiny patches on the surface of the coating, which can leave marks on the surface once it is dry.

Approximately 24 hours after the application of the last layer, the coating is well dried. In unfavourable conditions (low temperatures and/or high level of humidity) the drying time could be slightly longer.

Once the coating is sufficiently dry, the collection of water on horizontal surfaces does not leave stains.

When coating certain types of wood containing a large quantity of tannin (e.g. oak, chestnut etc.), drying and through drying can take much longer.

#### CONSUMPTION

One liter of Tophybrid covers:

- >> 15-18 m<sup>2</sup> with the first coat,
- >> 9-12 m<sup>2</sup> with two coats,
- >> 7-9 m<sup>2</sup> with three coats.

Consumption strongly depends on the amount applied, as well as the type and treatment of wood.

When coating surfaces that had already been coated, one liter is enough to cover up to 25 m<sup>2</sup> with 1 coat.

Consumption is the highest with the first coat. Depending on the type of wood, consumption increases with strongly absorbent types of wood (e.g. pine sapwood) and decreases with non-absorbent deciduous hardwoods (e.g. oak).

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Once the surface is smoothly finished, less coating remains, also reducing consumption. The surface is smoothest after high-quality planing or high-quality sanding treatment. It is less smooth when the surface is poorly planed, whereas sawn wood is the least smooth.

Due to all these reasons, it is hard to predict the number of coats required. Therefore, information on the quantity of coat used per m<sup>2</sup> is more relevant to achieve adequate protection.

With Tophybrid, at least 0.1 l/m² must be used to achieve optimal protection. In general, this is possible in two coats, or else with several.

### **CLEANING TOOLS**

Tools and accessories should be cleaned with water and detergent immediately after use.

# REFRESHING THE COATING

Wood protected with Tophybrid is restored by first removing the dirt with a scrub brush or plastic brush, then by applying another coat (approximately 20 to 25 m<sup>2</sup> with 1 l). If the coat surface is severely deteriorated, we recommend applying two coats of Tophybrid (approximately 10 to 15 m<sup>2</sup> with one coat).

Restore wood before the coating deteriorates completely. To restore wood, use the same colour shade of Tophybrid as was used for the first coating. The surface will become darker with each restoration or subsequent coating of the already protected surface. Should you wish to soften the darkening effect, prepare a mixture of coloured and colourless Tophybrid (no. 12) for restoration. The mixture should not contain more than 50 % of colourless Tophybrid (no. 12).

To expediate the restoration process, you can protect the bottom part of the object, where the coating is usually the most deteriorated, with a coat of Tophybrid of usual thickness, and coat the top part with a thinner layer, only so as to even out the colour shade between the old and the new coating. The durability of the coating and the time between restorations depend on the type of wood and the treatment method, the





number of coats, and especially on the exposure of wood to weathering and other effects. In very exposed positions (south-facing sides, at high altitudes, or with wood which does not have structural protection), it is recommended to check the condition of the coating on an annual basis.

### ADVICE AND WARNINGS

Use tools that do not rust. We recommend using high-quality brushes for water-based coatings.

Surface appearance is improved when the surface is gently sanded with fine sandpaper with grit size 220 and when dust is removed after the first coat of Tophybrid is applied. Should you experience problems when applying the first coat onto new wood (drying too fast, traces of brush), it can be thinned with up to 10 % water. If the product is thinned, several coats are usually required to achieve the same level of protection. The consumption of the unthinned coating per m<sup>2</sup> is to be used as per the criteria.

Coatings which are too thin significantly decrease the durability of the coating, and it is therefore of utmost importance to follow the instructions regarding the prescribed amount of the product to achieve adequate protection. Special attention should be paid when protecting the edges of the wooden element, as the coating thickness is usually thinner here, causing the deterioration of the coating in these areas. There are fewer problems with rounded edges.

Applying several layers of the coating creates a more intense colour shade. For a milder effect, mix coloured and colourless (no. 12) Tophybrid. The mixture must contain at least half of coloured Tophybrid. To ensure the highest protection against UV rays, we recommend applying the first and second coat with the base shade, while the mixture can be applied for the third and following coats.

Intervals between restorations can be extended by increasing the thickness of dry film - e.g. with three coats.

All assembly cuts must be well protected with Impregnant and Tophybrid before assembly. Pay special attention to transversal cuts, where water seeps into wood first,





causing it to deteriorate. We recommend applying several coats in these areas. After assembly, any damage caused by screwing must also be coated.

The rules of structure protection (correct assembly of wood) must be taken into consideration when planning wooden structures and elements. It is especially important to assemble the parts in such a manner as to prevent water from accumulate anywhere, as this causes the more rapid deterioration of the coating and wood.

Although the product is not sticky, direct wood-to-wood contact should nevertheless be avoided. Therefore, suitable seals should be applied onto joinery which is protected with Tophybrid.

Check with the manufacturer or dealer that the seals are suitable. Unsuitable seals can cause adhesion between the seal and the coating, or even tearing.

Even when working with coatings containing low amounts of volatile organic substances, it is required to air the working space.

Tophybrid is an alkyd-based coating. It is characteristic for these coatings to become yellow in the dark (lining in dark spaces, battens in the dark near the wall, door contact surfaces, etc.). This is most noticeable with the white shade. For such cases, we recommend using the Belinka Interier woodstain in living areas.

This problem does not occur when using the product outdoors, as the coating is sufficiently exposed to light on a daily basis.

## **LIMITATIONS**

Colourless Tophybrid (No. 12) is not suitable for outdoor use.

#### STORAGE AND HANDLING

Tophybrid is to be kept in well-sealed packaging at a temperature between +5 to 30 °C, out of reach of children and animals, and away from foodstuff. Pour any unused amount of the product from the big packaging to the top of a smaller packaging, seal well and mark.

This product must not freeze!





### SHELF LIFE

Shelf life printed on packaging.

#### **ENVIRONMENT**

Do not pour coatings into the drainage system, surface water courses or anywhere in the environment. Use all contents till empty. Dispose of packaging or unused product as special waste. For collection centres ask authorities in your country.

# **REGULATIONS**

In connection with regulations governing product safety, safety at work and transport, read the material safety data sheet.

# ADDITIONAL TECHNICAL INFORMATION

More information can be obtained from our distributors or visit our website: www.belinka.com.

The purpose of technical information is to inform users about the possibilities of product use and its technical properties. Even though the advice is based on long-term experience, it does not exempt the user from making sure the product is suitable for use in their specific case. Due to numerous possible effects on the properties of the product, including the type and quality of wood, the method and conditions of application, the experience of the user, and the conditions of use, we cannot take any responsibility for material damage incurred when using the product. In the event of doubt, please call our advisory service.

