

Real wood. Reshaped.

3D-Veneer

Surface treatment

Surface treatment of 3D-Veneer

Lacquering, coloring and staining guidelines

1. Clear lacquering

For molded parts made from 3D-Veneer, start with a finish that has a high solids content. In most cases, water-based lacquers meet this requirement.

Solvent-based lacquers tend to accentuate the joints between the veneer strips. Always apply a water-based primer first (e.g., Votteler Hydropal). The water makes the joints swell and close. Different lacquer systems can then be sprayed over this primer to create a durable surface (e.g., Votteler Puridur). For seating furniture, choose a lacquer system that is flexible and resistant to perspiration. We developed and tested the following method together with Votteler.

The Votteler products are examples only. The method also works with other high-quality lacquer systems.

Method

01 PREPARATION	Do not blow off sanded 3D-Veneer parts with compressed air. It opens the joints, which can then show through the lacquer. Clean the parts with a cloth or brush only.
02 PRIMING	Apply a thin coat of water-based primer (e.g., Hydropal). Apply several coats if needed to close the pores.
03 INTERMEDIATE SANDING	Sand with fine sandpaper (180 or 240 grit).
04 FIRST LACQUER COAT	Apply a generous first coat of lacquer (e.g., Puridur).
05 INTERMEDIATE SANDING	Sand with fine sandpaper (240 grit) or fine steel wool.
06 SECOND LACQUER COAT	Apply a thin but closed second coat of lacquer (e.g., Puridur).
07 FINAL SANDING	If necessary, make a final polish.

General notes

Do not lacquer at temperatures below 15 °C. Lower temperatures can leave a white haze on the surface. Avoid wet-on-wet application, as it leaves the pores open. If pores remain open, apply several coats of water-based primer.

2. Colored lacquering

For pigmented lacquer, prime the surface first (e.g., Hydropal), then lacquer it (e.g., Puridur). The result is an even color with visible grain.

Method

01 PREPARATION	As described in section 1.
02 PRIMING	As described in section 1.
03 INTERMEDIATE SANDING	As described in section 1.
04 ADDITIONAL PRIMING	For open-pored wood, apply an additional coat of water-based primer.
05 CLEAR COAT BEFORE PIGMENTATION	Before applying the pigmented lacquer, apply one coat of clear lacquer (e.g., Puridur). This prevents the pigments from settling into the pores.
06 PIGMENTED LACQUER APPLICATION	Disperse the pigments evenly in the lacquer and apply the lacquer uniformly to the surface. The coating thickness affects the final color.
07 TOPCOAT	Apply a final topcoat (e.g., Puridur).

3. Staining 3D-Veneer surfaces

3D-Veneer products can be stained, with a few conditions. We developed and successfully tested the following method together with Votteler Lackfabrik. Apply the stain with a spray gun and a small nozzle (0.8-1.5 mm).

Method

01 SANDING	Sand the surface with fine-grit sandpaper. Do not blow off the surface with compressed air afterward; clean it with a brush only.
02 PREPARING THE STAIN	Thoroughly stir or mix the stain (e.g., Votteler Hydroplus stain). Depending on the product, it may be thinned if necessary. Whenever possible, however, increasing the spray pressure is preferable to excessive thinning.
03 FIRST STAIN COAT	Apply a thin first coat in a cross-coat pattern and allow it to dry completely. Use as little water as possible on the molded part, since moisture can cause the joints to swell.
04 BUILDING THE COLOR	Build up the desired color gradually by applying several thin coats of stain.
05 PRIMING	Apply a water-based primer (e.g., Hydropal).
06 LIGHT INTERMEDIATE SANDING	Lightly sand the surface with fine-grit sandpaper.
07 LACQUERING	Then lacquer the surface in the same manner as a clear-finished surface, as described in Section 1 (e.g., with Puridur).

4. Colored or clear finishes on 3D-Veneer Basic

3D-Veneer Basic also works as a visible top layer. With the right surface treatment, it gives an attractive finish at a lower cost than walnut or oak top layers. Many products already use 3D-Veneer Basic as the visible top layer in large volumes.

We recommend showing the natural texture of 3D-Veneer Basic rather than hiding or over-smoothing it. Aim for an open-pored surface you can feel by hand. Test the right finish for your application together with your lacquer supplier.

