

WHITE FLECKS IN OPEN-GRAINED VENEERS

White flecks sometimes appear in open-grained, dark veneers after coating. The problem has been observed more frequently in reconstructed veneers, but can occur in natural, open-grained veneers as well. It is difficult to fix once a full coating system has been applied. This Technical Bulletin describes the main causes of white flecks, and suggests ways of avoiding them.

PROBLEM 1 – SANDING DUST

Dust generated during sanding may become trapped in the grain of the veneer, causing defects in the coating film. In some cases, nitrocellulose and pre catalysed coatings will dissolve minor dust particles and allow them to melt into the wet coating. Two-pack polyurethanes and some acid curing coatings do not dissolve dust particles. Although not noticed when the coating is wet, they may show up as white specks when the coating dries. In most cases the dried coating has to be removed by sanding to fix the problem.

Prevention: Use a fine grade of good quality sandpaper. Sanding the surface smoother reduces areas where dust can become trapped. Good sandpaper cuts cleanly and allows sanding dust to be removed more easily by extraction. Changing the sandpaper at regular intervals is very important, otherwise the sandpaper clogs up and contaminants are left behind on the veneer. With very open grained veneers, grain filler will fill any voids, but it must be compatible with the stain and coating system. When the veneer has been sanded, stained and filled (if necessary), the sealer coat is applied. When dry, the sealer is sanded and all dust removed by using a brush and dusting gun. Some companies produce a special “isolator” coating that seals the pores of the substrate, preventing a wide range of film defects such as pin holing, bubbling and cratering. This can also help with troublesome veneers.

PROBLEM 2 – BUBBLES

Bubbles may form if the coating starts to dry while air is still escaping from the grain of the veneer. Bubbles occur along the grain, showing up as very small balloons under magnification. To the naked eye they appear as white,

crystal-like specks in the grain.

Prevention: An “isolator” coating may help – alternatively, reducing the sealer coat with thinners or a retarder to slow the drying rate will allow air to escape before the sealer starts to dry. If bubbles have already formed, sanding will normally remove them. All sanding dust must be removed, otherwise the problem described above may occur. Well-maintained spraying equipment in a fully enclosed, climate-controlled spray booth will help, and dust control must be maintained to a high level.

PROBLEM 3 – GLUE

Glues used in veneer laying or furniture manufacture can cause problems if allowed to dry on the timber or veneer. They will dry clear and seal off the surface, causing problems when over coated with a clear coating or stain. Since the coating wets the surface differently, the glue sealed area dries to a different colour.

Prevention: Careful inspection of the veneer should show up traces of glue which can then be removed by thorough sanding. Any shiny spots or marks must be removed prior to coating.

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