



The Causes And Repair Of Beading In Wood Floors

When a new wood floor is installed, it is necessary for the installer to perform a bit of a balancing act. Wood flooring contracts and expands with changes in humidity and temperature. The balancing act involves determining the moisture content of the wood that is being installed, performing calculations based on the range of humidity conditions likely to be encountered at the installation location and then allowing sufficient contraction or expansion room between the planking. Low humidity conditions at the time of installation can require that additional space be left between planks to allow for expansion caused by increases in humidity during the spring and summer months. When wood finishes are applied to a new floor, it is normal to have some finish flow down between the spaces in the planking. The potential for finish to flow in between wood planks has increased with the use of drag / T-bars to apply wood finishes.

Polyurethanes form a film through a combination of evaporation of the carrier material, generally mineral spirits in solvent-based systems or water in water-based materials. As the carrier evaporates it initiates cross-linking or film formation of the coating. As the finish dries at the surface, it can trap the carrier in the material that has flowed between the planks, causing it to stay in a semi-liquid or gelled state for an extended period of time. The carrier will usually continue to evaporate out very slowly, but it often takes months before it reaches a solid state. This situation doesn't indicate a problem with the wood finish; it is simply the nature of the way they behave. As the humidity and temperature increase, the planking expands and like a tube of toothpaste, the finish is compressed and squeezed from between the boards, often in the form of little beads. Because it hasn't cured, it comes out tacky and will pick up dirt and soil causing black lines to appear between the planks or it can adhere to footwear and be tracked throughout a facility.

Unfortunately wood finishes often continue to be forced up between the planking as the humidity increases, until the wood reaches its maximum level of expansion.

The normal procedure for addressing this situation would be to allow this to occur, stay off the floor and let the finish beads harden, remove them with a putty knife or other scraper, screen the floor smooth and apply another coat of finish.