

## Panelization & Sidebonding



Panelization is the glueing of each individual strip of wood into large panels randomly spaced across the gymnasium floor. As the humidity of the environment fluctuates, the wood will expand and contract as its moisture content changes. Humidity fluctuations of 15% or more can cause substantial movement in the gymnasium floor. Normally, these movements are distributed over the hundreds of cracks between the individual boards in the floor. But, as the wood strips are "panelized" together, they leave larger than normal cracks at random spaces across the floor. The floor itself can also be glued to the concrete subfloor making movement impossible.

Panelization has been seen with several types of finishes, but it is most prominent with the waterbornes. The high strength of these products causes them to act as a very strong glue. These products also have very low viscosities making it easier for them to flow into and through cracks. As a result, they tend to be more susceptible to causing panelization.

Below are two simple solutions to avoid panelization on your gym floor:

### 1) *Control Temperature & Humidity*

Often overlooked, controlling humidity fluctuations is undoubtedly the most direct way to control panelization by minimizing movement. Humidity inside a facility should be maintained between 40% - 60%. Temperature should be kept between 65F - 75F

### 2) *Proper Finish Selection*

With increasingly stringent VOC regulations, contractors are more frequently using waterborne finishes. To minimize panelization with waterborne finishes, it is best to use an oil modified polyurethane sealer such as *PoloPlaz World Class Sealer* or *PoloPlaz Fast Dry Sealer*. These sealers are recommended for use with *PoloPlaz Express* and *PoloPlaz Dominator*.

If a total waterborne system is necessary (including a waterborne sealer). The owner should be warned about the possibility of panelization, and how to combat it by controlling humidity.

**TIP**

*Felt paper can be used as a barrier to prevent the wood floor from bonding to the subfloor. Although not the ideal solution, it will reduce the problem. This will not, however, prevent the boards from bonding to one another.*



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