



## *Floor Squeaks*

Flooring squeaks and "pops" are typically the result of the interplay between the tongue and groove in adjacent rows of strip flooring. Tongue and groove material rub together during facility use, causing squeaking and popping sounds during either the loading or unloading phases of activity on the surface.

Maple flooring is a hygroscopic material. When exposed to varying temperatures and humidities, it will release or absorb moisture until it is at equilibrium with the surrounding atmosphere. This environmental interaction will cause individual flooring strips to expand or contract.

Regular seasonal flooring system movement combined with facility use at certain times during the year can result in the development of squeaks and "pops" in scattered locations when the match between tongue and groove in adjacent strips changes.

It is impossible to guarantee that any wood floor system will not develop squeaks or "pops" as a result of normal seasonal expansion and contraction. Due to resiliency requirements and multi-layer subfloor configurations, some systems tend to develop squeaks and "pops" more consistently at certain times of the year than other systems. Expansion/contraction cycles and resulting squeaking/popping difficulties can be minimized by maintaining a consistent indoor environment.

The Maple Flooring Manufacturers Association (MFMA) recommends maintaining air temperatures between 55 and 75 degrees, and indoor relative humidities between 35 and 50 percent year-round. If flooring materials are properly acclimated, a 15 percent fluctuation in indoor relative humidity will not adversely affect the maple. Excessive shrinkage and/or expansion (and resulting squeaks/pops) may develop with indoor relative humidity variations in excess of 15 percent.

Remedies for noisy floors include the application of talcum powder in areas of occasional squeaks or pops, or the installation of additional mechanical fasteners (face-applied and plugged) in areas of persistent squeaks. The latter remedy may not be an option on certain floating floor systems.

If you have additional questions, please contact MFMA's Technical Director at 888/480-9138.

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