



## FINISH PEELING/CHIPPING

Finish peeling and/or chipping, in a very moderate form, occasionally occurs in new maple installations that experience large swings in humidity levels. This condition most often develops over painted areas of the maple surface.

MFMA has no written policy or specification regarding the appearance or frequency of finish peeling and/or chipping in MFMA flooring installations. Finish peeling and/or chipping can be a result of expansion/contraction of the flooring system due to seasonal moisture level changes, which causes fractures in the finish in painted areas as maple flooring adjusts to drier indoor conditions during the heating season.

The "elastic" properties of many surface finishes are commonly restricted by application over less "elastic" game line paints. During the first heating season, a new maple floor will typically contract more than in subsequent years under the same environmental conditions. USDA performance data confirms this physical characteristic with all hardwood species.

Assuming drier than average conditions exist in a facility during the first heating season, above-average shrinkage may result in some paint fracture over maple joints and subsequent peeling or chipping of surface finish in these areas, regardless of the application methods used with the floor sealer, game marking paint and finish. With the use of tape or decals, floor finish may experience similar conditions.

Maple flooring adjusts to its environment over its lifetime. Typically, the most expansion/contraction is experienced in the first 18-24 months of a floor life. The Maple Flooring Manufacturers Association (MFMA) recommends maintaining indoor relative humidities between 35 percent and 50 percent, and air temperatures between 55 degrees and 75 degrees year-round.

By limiting wide swings in atmospheric conditions inside the facility, flooring owners and facility managers can reduce the expansion and contraction of the flooring system. 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 may occur with indoor relative humidity variations in excess of 15 percent.

In buildings where air conditioning or humidification/dehumidification equipment is not available, many facility managers make use of circulating or venting fans. Other facilities have vent windows or corridor doors available to open as needed to improve air circulation.

Facilities without adequate HVAC equipment to regulate the indoor atmosphere, or those facilities that are "closed up" with no ventilation for long periods of time (summer breaks) are more likely to develop flooring problems directly related to environment. Floor finish peeling and/or chipping as a result of expansion/contraction cycles can be minimized by carefully monitoring and adjusting the indoor environment in the facility, particularly during the first year after installation.

If you have any additional questions, please contact MFMA's Technical Director at 847-480-9138.

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