



Common Side Effects of Flooded Maple Sport Floor Systems

When maple floor systems are exposed to large amounts of moisture from roof leaks, burst pipes or leaks from doorways/entrances or other source of moisture the side effects can be numerous and serious in nature.

FLOOR BUCKLING – raising of the floor system when pressure on the floor system exceeds its ability to expand horizontally causing the floor system to bulge upward.

Causes: Floor buckling is typically caused by isolated, extreme moisture difficulties (i.e. roof leaks, hydrostatic pressure and other underslab moisture conditions, surface spills, regular wet mopping or power scrubbing the surface etc.)

Solution: Determination of the source and the removal of the moisture and affected floor system materials. Replace with new material.

MOLD – a furry growth of minute fungal hyphae occurring typically in moist warm conditions, especially on organic matter. Mold grows where there is damp, decaying organic matter.

Causes: It has been our experience that mold is a symptom of prolonged exposure to moisture.

Solution: The MFMA is not aware of a procedure to ensure the complete removal of mold from a maple flooring system. Health issues regarding mold and mildew in any occupied space are increasingly scrutinized, and even more so in schools.

ROT – describes a condition where organic material undergoes decomposition from the action of bacteria or fungi. The maple flooring or wood subfloor components become softer and are gradually destroyed.

Causes: When wood products are exposed to high moisture levels for extended time periods, and then subsequently dried to uniform conditions, dry rot is a possible outcome. Wood flooring that is exposed to moisture for extended periods of time sometimes turn black, which is an indication of rot.

Solution: Flooring and system components with dry rot or flooring strips that have turned black need to be replaced.

When maple sport floor systems are dried using common restoration techniques these are things to consider before proceeding with drying out a floor system from a large moisture incursion:

COMPRESSION SET – is a permanent compression of wood fiber at the edges of flooring boards, arising from severe expansion and compression ridging. This may occur when expansion forces exceed the compressive strength of wood fiber in the flooring boards. Compression Set is generally not detectable until after a floor has returned to its normal equilibrium wood moisture content. Depending upon severity, mild to extreme gapping may occur between flooring boards. Compression Set is permanent.



COMPROMISED FLOORING AND SUBFLOOR FASTENERS – whether the surface maple flooring buckles alone or the entire maple floor system buckles, the holding power of the floor system fasteners have been compromised. While it may not be immediately evident, resilient floor systems that contain compromised floor fasteners have an increased likelihood of developing loose flooring strips. These same metal floor system fasteners that have been exposed to moisture tend to rust, further weakening the elasticity of the fastener, which can lead to broken fasteners.

PERFORMANCE ISSUES – subfloor components are integral components to resilient sport floor systems and the performance characteristics associated with those systems can be negatively affected by moisture intrusion. The most common issue involves the delamination of subfloor plywood or other types of subfloor sheathing materials.

MANUFACTURER’S WARRANTY AND INSURANCE COVERAGE – moisture intrusion can impact the floor system manufacturer’s warranty and these side effects may not be covered by insurance companies when they become apparent months after the floor system is dried out.

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

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