Concrete Surface Vapor Barriers

AACER SPORTS FLOORING
an Infinity Wood Floors Company

Above vs. Below

A concrete surface vapor barrier, frequently referred to as a vapor retarder, is commonly included as part of a standard hardwood athletic floor system installation. The surface vapor retarder is included to address vapor emission from a substantially cured slab and should not be confused with the moisture barrier below the slab which serves to block free moisture from sources such as saturated ground, hydrostatic pressure, or poor drainage.

Cured Concrete

Hardwood athletic floor systems must not be installed until the concrete substrate is acceptably cured to a level adequately addressed by the concrete surface vapor retarder. The method of evaluating relative humidity in the slab through the use of embedded probes, ASTM F2170, is considered most accurate and adopted by the Maple Flooring Manufacturers Association for determining acceptable curing levels. The MFMA recommends maximum 85% RH when proceeding to include standard 6-mil polyethylene film vapor retarders.

Elevated Vapor Emission

Alternate vapor retarders/barriers providing lower (better) permeability ratings can be acceptably used to address concrete levels above 85% RH. However, such concrete surface vapor barriers are only included as usual to address vapor remaining from a substantially cured slab and do not serve to address free moisture as described above.

Floating and Anchored Floor Systems

Providing a sufficient vapor retarder/barrier in regard to the associated RH level allows acceptable installation of floating or anchored floors over such cured slabs that are absent of free moisture. Penetration of anchorage pins through the surface vapor barrier into the substantially cured concrete substrate does not negatively affect the floor system.

END