

Balanced Humidity



All wood flooring associations and manufacturers present the importance of maintaining a controlled range of seasonal humidity to assure limited dimensional change of wood flooring.

Like all wood materials, hardwood athletic flooring and wood subfloor components are hygroscopic meaning that they absorb and release moisture from surrounding airborne humidity. This results in dimensional change of shrinkage developing during the dry heating season and expansion occurring during humid summer months. Thereby introducing spacing between flooring boards in January that were significantly or fully tight in July.

Aside from maintaining a controlled range of humidity as applied only at the flooring surface, wood products and hardwood athletic floors perform best when airborne moisture is balanced through the full dimension of the components. Preventing contrary levels of humidity above the floor as compared to below the floor averts such issues as “cupping”, where board edges turn up slightly, and assures that wood subfloor components and the wood flooring surface react according to the same moisture content influences.

Our Acer “PowerVent Advanced” system was developed for the benefit of maintaining balanced humidity and consequent balanced wood moisture above and below hardwood athletic floors. By monitoring levels above and below the floor, “PowerVent Advanced” either introduces or reduces humidity levels determined by sensors within the subfloor as well as within the room itself.

In addition, the “PowerVent Advanced” system also includes a built-in alarm relay suitable for remote connection to personal devices. Conditions such as extreme humidity under the floor or elevated CO2 levels can also be monitored for alarm activation such as a strobe light indicator or connection to the facilities existing building control system.

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