



Technical Bulletin – Wood Acclimation / Handling and Storage

Wood Acclimation

Wood dries by movement of free water through fiber cavities, fiber walls and movement of water vapor through wood. Because wood is not homogeneous, it shrinks more along the growth rings (radial) than across the rings (tangential). Tangential (width) dimensional change is often nearly twice that of radial (thickness) movement for wood species and (longitudinal) dimensional change in wood is almost always negligible. These shrinkage variations cause drying defects like warping and checking. Shrinkage and swelling cease as the moisture content of wood approaches equilibrium to its environment. Species of wood vary in the rate and amount of shrinkage. To minimize shrinkage, warping, checking and splitting in the finished product, lumber must be acclimated to the middle of the range of expected in-use moisture content. This can occur by either air drying or kiln drying the lumber. The extent of drying defects depends on the species and the rate at which the lumber dries. For much of the United States, the point of equilibrium in an exterior environment is between 12% to 18%. For the seasonal EMC levels in your region a copy of the US Forest Products Laboratories document titled, "Equilibrium Moisture Content of Wood in Outdoor Locations" is available in our pdf library.

Pre – Installation Handling and Storage

Iron Woods® should be stored out of direct sunlight, rain or snow, kept clean, dry and off the ground prior to installation. A moisture barrier should be placed on the ground under the Iron Woods® to prevent Water Cycle inside the packaging while stored on site. Allow Iron Woods® decking to acclimate and stabilize to equilibrium humidity levels prior to installation to reduce post installation movement.

Re- Installation Handling and Storage

Iron Woods removed after some years of use will likely have reached equilibrium moisture content. A moisture barrier should be placed on the ground under the Iron Woods® to prevent Water Cycle inside the packaging while stored on site. Allow Iron Woods® decking to acclimate and stabilize to equilibrium humidity levels prior to re-installation to reduce post re-installation movement.

Store removed Iron Woods® out of direct sunlight, rain or snow, kept clean, dry and off the ground prior to re - installation. Iron Woods® should be stacked in a well ventilated location with dry wood stickers/slats not less than ½" in thickness or more than 1.5" in width placed no more than 24" on center between each row of Iron Woods. Do not dense pack Iron Woods after removal as any surface moisture which might be trapped in the unit may result in de equalization, potential mold growth and or water stains The likelihood of sticker marks will increase the longer the wood is stored between removal and reinstallation. It is reasonable to expect some movement of the wood upon removal as tension which was addressed during initial installation, will be released upon removal. Re-install Iron Woods as per chosen fastener manufactures instructions.