

Quick Facts About Dryness & Solid-wood Musical Instruments

Most people are aware that humidity is something they should pay attention to if they own solid-wood instruments, but they don't always know what that means or what to do about it. If this is true for you, the following facts will be helpful in deciding what you want to do to safeguard your instrument from dryness.

- **40-50% relative humidity is a widely accepted safe range** for solid-wood instruments. Below 40%, the risk of cracking from dryness begins, and the further you get below 40%, the greater the risk. Wood loses and gains moisture to match the air around it, so **if the air is drier than 40% relative humidity (RH), the wood will shrink. If it shrinks a lot, it might crack.**
- **Most cracks happen in the winter in colder climates.** Cold air outside does not hold much moisture to begin with, and when you bring it inside and heat it with a furnace, the RH drops dramatically. For example, on a 39° F day, even if the outside air is up around 65% RH, when that air is brought inside and warmed to 68°, the RH will drop to a dangerously low 24%. In many places, winter conditions are much dryer than this and therefore even more risky.
- **The longer an instrument is dry, the greater the odds are that a crack will develop.** In low RH conditions, shrinkage can happen in a few days on thinner wood parts like soundboards and backs, and take up to a few months on thicker wood. Because each piece of wood is different, there is no way to predict what will happen to any individual instrument. It may be that you never humidify at all and yet none of your instruments have major problems. Or you might find that one develops a crack and the rest do not. Below 40% RH all solid-wood instruments will be under stress, but there are no guarantees about what will or will not happen. **However, you can rest assured that an instrument stored at or above 40% RH will not crack from dryness as long as the wood was properly conditioned.**
- **In the musical instrument industry, it is the standard that dryness-related cracks are not covered by manufacturer's warranty.** It is recognized that building instruments with properly conditioned wood is as much as a builder can do to protect against cracking from dryness (short of building with plastic!). Dusty Strings instruments are built with wood that has been fully dried to the proper moisture content. Once an instrument is in your possession, we cannot be responsible for the environment it lives in. We can, however, help you with repair questions if needed.
- **The best way to control the humidity is to use a room or house humidifier that will keep it in the 40-50% RH range.** If that is not practical, a good alternative is to store your instrument in the case with an instrument humidifier. These require monitoring and regular refilling with water. You can see one possibility on our website and they are available at most music stores as well.
- **The only sure way to know you do not have a dryness problem is to regularly measure the humidity with a good quality hygrometer.** Again, see the accessories section of our website for one possibility, or ask at your local music store.
- **Don't worry about taking your instrument out to play in dry weather!** A few hours is not enough to do any damage - just put it back in its properly humidified environment when you're not playing.

Dusty Strings