

Quick Facts About Dryness & Solid-wood Musical Instruments

Dry climates can be dangerous for solid-wood instruments, but that doesn't mean you can't own your dream instrument! If you understand why dryness cracks happen and how to prevent them, you can stop worrying about your instrument and enjoy playing it.

- **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.**
- **Cracks commonly (but not exclusively) 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 warm it up to room temperature, 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° F, 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, sides, 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 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 only sure way to know your instrument is safe is to regularly monitor the relative humidity in the close vicinity of your instrument, using a good quality hygrometer.** See the accessories section of our website for one possibility, or ask at your local music store.
- **People commonly underestimate the amount of humidification required.** Depending on the RH and the size of the space, it can take many gallons of water per day to keep the humidity in the 40-50% RH range. In a large room, simply positioning a humidifier close to the instrument won't help, since moisture quickly distributes itself throughout the whole airspace. If you can't adequately humidify the entire space, keeping the instrument in the case with a case humidifier works well. It takes much less moisture to maintain a safe humidity level in the small, enclosed space inside the case. Keep your hygrometer inside the case as well.
- **Don't worry about playing your instrument in dry conditions!** 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

3450 16th Ave. W., Seattle, WA 98119 • 866-634-1656 • www.dustystings.com