

HUMIDIFICATION AND WARPED DOOR DISCLAIMER

The natural process of expansion and contraction occurring in wood kitchen cabinets is not new or exclusive to ACPI cabinetry. Wood of all species is hygroscopic, meaning that it is subject to the humidity and temperature of its environment. It will lose or gain moisture and consequently shrink or swell depending on the environment. This process can affect your cabinetry doors, drawers, and face frames. Even protective coatings cannot prevent this movement; they merely impede the process.

As humidity increases, the moisture content increases, and wood expands. As humidity decreases, the moisture content decreases, and the wood will actually shrink.

As an example, if the wood product is measured to have a moisture content of 10% and is exposed to 25% relative humidity, one can expect the wood to dry to 5% moisture content and shrink as it dries.

The only way to accurately predict wood movement is to know the moisture content of the material when you receive it. Moisture content is measured using a moisture meter.

Wood may expand and contract differently from cabinet to cabinet and from joint to joint within the same cabinet. Therefore, painted & stained wood cabinetry should be expected to "shift" during the various shifts in weather throughout the year.

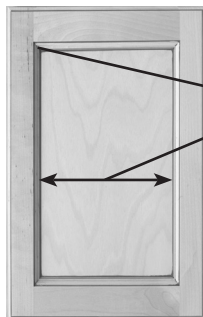
Changes in temperature that naturally occur from season to season (especially humidity or prolonged moisture) will cause movement in hardwood products, such as hairline cracks or separation. These issues are more common near joint areas and panel components.

MOISTURE CONTENT VS. RELATIVE HUMIDITY

RELATIVE HUMIDITY	MOISTURE CONTENT
0%	0%
25%	5%
50%	9%
75%	14%
99%	23-30%

Source: <http://www.forestprod.org/cdromdemo/wd/wd4.html>

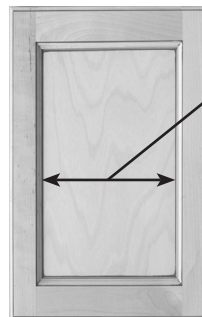
COMMON EFFECTS TO JOINTS AND PANELS DUE TO TEMPERATURE FLUCTUATION



HEATING SEASON

- Stain or paint gaps
- Panel shrinks

As wood shrinks, mitered joints may create cracks from the inner corner



HIGH HUMIDITY

- Panel swells

As wood expands, mitered joints may create cracks from the outer corner



Homes in most of the U.S. that lack humidity control typically experience interior levels of humidity from 25% relative humidity to 65% relative humidity. This range of humidity will cause a 6% change in the moisture content of the wood.

Source: http://www.woodweb.com/knowledge_base/A_Finish_Carpenters_Guide_to_Understanding.html

Wood products, especially cabinet doors and drawer fronts, absorb excess moisture in the air and can expand. Often the wood will return to normal as the moisture in the air subsides. However, there are instances where door warpage may occur. A door is best tested for warping issues following a complete heating and cooling season. To test a door, place it face-down on an even, flat surface and measure the gap between the surface and the door edge to the nearest 1/16".

acpi WARP SPECIFICATIONS

Door Warpage: <1/16" per lineal foot, <1/8" maximum warp

Door Twist: Allow 1/8" maximum warp, one corner up, three corners down allowed

Warping of doors, drawers, and face frames are caused by the climate surrounding the product and are not considered defects. However, we recognize that this is a sensitive issue during new home and remodel construction projects. Products need to acclimate to their environment under normal HVAC conditions for a period of at least 60 days to properly settle. If after 60 days there remain signs of warping as outlined above, please contact customer service for a replacement door. Following this 60 day acclimation period, acpi will replace warped doors and drawer fronts within the first 180 days from the date of purchase. Products more than 180 days past purchase date or showing signs of warping less than the guidelines above are not considered warrantable and are not covered by this policy.

Improper storage can cause minor changes to the size of these materials. These changes in size that occur due to this environment are not covered by ACPI warranty. Therefore, we encourage you to take the following precautionary steps to help protect your cabinets from changes in humidity.

- Never store cabinets in a moist environment.
- Wipe off any excess moisture from cabinet surfaces as soon as possible.
- Store and install cabinets in a dry and conditioned environment. If you are installing product that has recently been transported, it may take a little while for the wood to acclimate to its new climate humidity – some expansion or shrinkage may occur.
NOTE: hinge adjustments may be required to improve the fit of the door during this process. See pages 12.14 -12.15.
- Monitor the humidity inside the home. Reasonably accurate digital thermometer-hygrometer units are available to measure humidity. Wood will continue to equalize with the surrounding moisture content found in the air despite a finish. It takes several days to several weeks before the wood returns to normal after any correction in the environment.
- Improperly adjusted hinges may cause a door to appear warped. A hinge-adjustment may improve the fit of the door. See pages 12.14-12.15 for hinge adjustment tips.

These steps will help hinder the effect of humidity on your cabinets; however, there is no process to prevent these effects entirely.

Please reference our Cabinetry Care guidelines for additional information ways to maintain the beauty and integrity of your ACPI cabinets for years to come.