



## Wood Flooring Shearing or Delamination? And Who's at Fault?

### The Homeowner's Issue:

This engineered wood floor installed in the south-central United States was coming apart. The customers called the retailer and thought it might be delamination, which they learned about on the internet. The retailer and installation company inspected the floor, and both agreed the issue was delamination. They saw several spots where the edges of the planks were elevated on the corners. The retailer called the manufacturer, and the manufacturer called an inspector.



Wood fibers can clearly be seen attached to the adjoining layers of these pucks cut with a hole saw. The failure was caused by wood shear, not delamination.

### The Inspector's Observation:

I was given permission to complete destructive testing with a hole saw to investigate the integrity of the bond-line joints at various depths of the engineered flooring. There was wood fiber still attached to the bond lines, so I determined the problem was not bond-line failure but wood shear. This issue is most likely related to the environment rather than a manufacturing defect. I asked about the HVAC and learned the homeowners' HVAC does not have a humidifier and was therefore installed in the attic. The flooring manufacturer states in its guidelines that 35–55% relative humidity must be maintained at all times. The homeowner said they were never informed they needed a humidifier, and the builder said the flooring retailer did not tell him humidity control was required. Everyone involved with the job thought an engineered floor didn't need climate control because they believed engineered flooring was supposed to be stable enough without it.



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## The Attorney's Analysis

Assuming the installer was the builder's subcontractor and that the builder was responsible for humidification as part of the HVAC system, then both the builder and retailer were negligent. The customer could submit a claim against both the builder and retailer or only the builder, depending on who supplied wood to whom. A huge problem will be determining who pays to fix the situation. If the HVAC system is mounted in the attic with no water or supply drain for a humidifier, then replacing the floor would be futile. A new humidification system must be installed, this time in the basement, and the cost of which would at least in part be the builder's responsibility. **Since the retailer did not educate anybody about the humidity requirements for this floor, then the retailer should also share responsibility for those costs.** However, the builder is primarily responsible here. The builder can claim the installer or retailer should have said something about humidification, but a builder should think of that issue and check into the maintenance and humidification requirements of all the interior finishing materials in the home, particularly when he is also installing the HVAC system.