

What Do You Expect?

Lack of education led to a laundry list of problems

By Mark Brown

The problem

A call came in from a flooring contractor. One of his customers, Mr. Park, had just called and was very upset about his hardwood floor. He bitterly complained that the flooring was changing color, there were gaps all over the place, and the finish was rough. Mr. Park was called to set up an appointment for an inspection. He said that the appointment could be set up on any day, but only after 3 p.m., when the afternoon sun made all of the problems really noticeable.

The procedure

The site-finished 2¼-inch oak floor was installed in Mr. Park's new home last July. It was now February. As in many new homes, there was very little furniture in the 2,000-square-foot main floor of the home where the hardwood was installed. There were no curtains on the windows and only a couple of area rugs on the floor. Mr. Park first pointed out that the floor seemed to be changing color. When he moved one of the area rugs he could see the floor had darkened around the outside perimeter of the rug while retaining the original color beneath the rug. He also stated he had begun to notice the development of gaps between individual flooring strips, a condition that had not been present when he first moved into the house. Finally, Mr. Park directed me to the foyer so I could see where the light coming in from the French doors to the rear of the house was highlighting floor surface irregularities near the foyer walls.

I was able to confirm that there had been some color change between the outside perimeter of the area rugs and the area beneath them. The condition was noticeable but not excessive.

Following the NOFMA inspection procedure, I marked spans of 20 flooring strips in a number of areas of the installation. In each area I measured the total width of the spans, width of individual strips, spaces between the strips and moisture content of each strip. I also took temperature and humidity readings. The moisture content of the flooring strips registered about 6 percent on my meter. The temperature was nearly 70 degrees Fahrenheit and the relative humidity was 25 percent. The equilibrium moisture content at this temperature and humidity is only 5.4 percent, so the wood moisture content was probably even lower than my meter could accurately read. There were gaps found between the individual strips that ranged from ¼ to ½ inch. Fasteners were found to be spaced at intervals of 6 to 8 inches.

To comply with Mr. Park's request, I stood in the foyer and sighted down the wall into the family room. Just as he had said, there appeared to be some irregularity in the finish along the wall. When this area was examined, some minor edger marks could be seen close to the wall. The condition was not noticeable

when viewed from a standing position in normal lighting.

The causes

Wood and finishes naturally change color when exposed to light. When areas of the floor are not exposed to the same light conditions, they can reasonably be expected to be a slightly different color.

According to the flooring contractor, the flooring was between 6 and 9 percent moisture content when installed, nearly the exact moisture content as when it was received from the manufacturer. At the time of this inspection the relative humidity and the flooring moisture content was very low. Having lost up to 4 percent moisture content since installation, it was not surprising that spaces had opened between the strips.

Try as he might, the floor sander cannot guarantee a perfect result. As pointed out in the NOFMA finishing guidelines: "Sander marks can be an indication of inadequate finishing, but the finish can be acceptable and still include this and other problems provided they do not appear over the entire floor."

How to fix the floor

The discoloration seen around the perimeter of area rugs can be blended with other areas by exposing them to the same light. This can be done by occasionally moving the rugs or by installing window coverings to limit the amount of sunlight reaching the floor.

The best way to address the gaps between the boards is to increase the humidity, which will increase the flooring moisture content, allowing the boards to swell slightly and close the gaps. To avoid seasonal gaps, it is advisable to limit swings in the humidity by using humidifiers in the heating season and dehumidifiers in non-heating months.

The edger marks seen were very minor and could only be seen in the glare of reflected light. Surface irregularities should be evaluated from a standing position in normal lighting. It was determined that this condition required no action.

In the future

Mr. Park did not have experience with hardwood flooring. The problems he was experiencing were attributable, primarily, to his lack of understanding of the product. The information in the inspection report was not unfamiliar to the contractor. To him, these were "common sense" issues. Together we created a basic hardwood floor facts letter for his future customers so they have more informed (and more reasonable) expectations. ♣

Mark Brown is owner of Carpet Arts Inspection Service in Ellicott City, Md.