

Stopping Stop Marks

Poor applicator technique results in streaked floor

By Chad Baker

The Problem

Last summer I was asked to troubleshoot a job for a relatively new contractor. He explained the problem as dull lines running cross-grain in the finish. Each line was about 1½ feet long and was visible from one wall to the other across the middle of the room. There also were shiny and dull streaks spread randomly throughout the floor. He thought they might be stop marks.

The Procedure

The contractor installed and sanded 1,000 square feet of red oak and then stained it a dark walnut color. Once the stain dried, he applied a coat of polyurethane sealer with a lambswool applicator. The next day, he applied a coat of satin finish with the same applicator. That's when he noticed the lines in the finish. Not knowing exactly what caused them, he screened the floor with 150 grit, tacked with water and applied a second finish coat with the same applicator. Again, he saw the lines in approximately the same location as the previous coat. Frustrated, he screened and applied a third coat of finish, but this time he changed to a new lambswool applicator, thinking that would solve the problem. Unfortunately, the lines appeared once again. He finished this floor the same way he had finished every other floor, but had never seen such pronounced lines.

The Cause

When I arrived, I could see exactly what was giving the contractor so much grief. Sure enough, it was stop marks he was seeing. He probably had them on other jobs but didn't notice, since stop marks can be difficult to see on light- or natural-colored floors. Stop marks are caused by flattening agents in the finish deposited on the floor when the applicator reverses direction or is lifted. When using a lambswool applicator with a satin or matte finish, the flattening agents are essentially bulldozed across the floor. Wherever that applicator stops is also where the flattening agent stops, forming a "stop mark."

On this job, the contractor pushed his applicator halfway down the floor before stopping to rewet it. Thus, everywhere he stopped, he was leaving a mark. Additionally, it was also apparent that the job-site conditions were less than optimal. The hot temperature on the job site certainly hadn't helped the finish flow out, and the dark color of the floor and low windows accented any blemishes.

How to Fix the Floor

Dark floors and low windows are merciless to the

aesthetics of hardwood floors. Hot temperatures don't help either, as the finish can lose solvent too quickly and start to set up before it has had a chance to flow out properly.

The best fix for this problem was to screen the floor with 120 grit and recoat with the job site at an acceptable temperature and relative humidity level. The contractor was careful to pay attention to the stop marks while abrading the entire floor. To be sure he screened the stop marks sufficiently, we wiped a damp towel across the floor to replicate what the finish would look like. If there were no visible marks where we wiped, there wouldn't be any after the finish was applied.

We then vacuumed the entire floor and tacked it with water. The contractor was fearful that the stop marks would appear again, so we tried a different approach, using a ¼-inch nap roller instead of the lambswool to apply the poly. The contractor had never used this technique before, and he was skeptical when I started rolling. (Note that not all poly can be rolled, so first check with your finish manufacturer to ensure compatibility.) When we finished the job, the contractor was astonished, and the floor looked like a million bucks.

In the Future

If using a lambswool applicator, run it wall to wall without stopping in the middle of the room. This reduces the likelihood of stop marks. In this case, the room was too large to make it wall to wall on a single dip from the bucket. A better method would have been to pour a line of poly the length of the room and run the applicator along that line. That way, there would have been plenty of poly to work with without having to stop midway.

With some finish, the best way to eliminate stop marks and lap lines is to use a roller. Unlike lambswool, which pushes the finish, a roller lays the finish on the floor, which may work better with satin or matte products. A couple things to remember when rolling finish: 1) Eliminate airflow during application. If not, the product may not flow and level properly, which could result in a textured look. 2) Use a ¼-inch nap roller. Anything thicker is difficult to roll and will put too heavy of a film on the floor and possibly lead to drying delays.

Regardless of the technique, the goal is to have a great-looking floor when you leave the job. Go with what works, and don't be afraid to try new techniques. Just be sure to consult with the finish manufacturer first. ♣

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