

Sheen inconsistencies

By Randy Wirtz, Technical Representative

A newly sanded and finished hardwood floor can be a striking thing to behold. The warm, rich appearance of the wood grain, combined with properly applied finish, invites you to take notice of each detail.

This is especially true when there is uniformity in the sheen of the finish coats. Sheen inconsistencies can usually be reduced or prevented by practicing these few basic principles.

Properly mixing finish prior to application

Before you begin finishing, take the time to thoroughly stir in the flattening agents. This will ensure an even mixture throughout the finish and especially important on larger jobs when working with multiple gallons of product.

When you find yourself working with finish that has different batch numbers, extra care should be taken. Pour the finish into a large, clean bucket and make a uniform blend of the multi-batch material. This does take some extra time, but is vital in making sure the job turns out it's best in the overall scheme of things.

Uniform application

Uniform application is one of the most important ways to minimize sheen inconsistencies. Heavy spots tend to be higher in sheen than the rest of the floor, while thinner spots have a lower sheen. These are generally more noticeable on lighter woods, such as maple.

Most finishes have this tendency, but waterborne finishes can be even more susceptible. Here are some application pointers to make your waterborne finish look its best. **Recommendations are based on a t-bar application:**

1. **Keep the puddle between 3"-5" wide. This prevents the coverage from thinning out and creating an uneven appearance.**
2. **When pulling the feed puddle, keep a consistent relationship between the puddle and the t-bar (i.e. keep the feed puddle at the same approximate location on the applicator each pass). Moving from side to side can cause the finish to apply unevenly.**
3. **Keep your down pressure consistent.**
4. **Be diligent about feathering out turn marks.**

Extreme environmental conditions

Environmental conditions unquestionably play a large role in how a finish performs. In certain conditions, such as low humidity and high temperature, finishes will dry very fast. As a result there is not sufficient time for the finish to flow and level.

In these conditions lap lines can develop when the finish has started to set up, and one attempts to merge freshly applied finish into the partially set up finish. In doing so, the surface of the partially set up coating has been disrupted, causing a duller sheen.

The first step in preventing this from happening is to know what conditions in which you are coating. Consider using a hygrometer to measure the air temperature and relative humidity. This can help determine whether it's a good time to coat or better to wait for more favorable conditions. Doing so is especially helpful for your final coat.



Here are some suggestions to keep you in the drivers seat:

1. **Know your environmental conditions before application.**
2. **Coat in cooler early morning hours (particularly on the final coat).**
3. **Use additional bodies to get the finish down quicker.**
4. **Retard the finish.**
5. **Break up the floor, and coat in sections if the area is large.**
6. **Avoid coating on hot floors, usually caused by direct sunlight or in-floor heating.**

Abrading between coats

Most finish systems on the market today recommend some type of light abrading between coats. Doing so promotes better adhesion, as well as cleans up dust or debris from prior coats. If done properly, this process will contribute to overall increased integrity of the floor.

Inconsistent sheen can result in the final coat from abrading too aggressively in base coats. Most commonly, this occurs when the final coat is a semi-gloss or gloss.

A contributing nuisance in abrasion issues is the distinct differences in hard and soft grain with wood species, such as oak and ash. Hard grain normally sits a bit higher than the soft grain. As a result, the hard grain takes the brunt of abrasion when aggressively treated, and the finish will dry duller in those areas. Applying a thin final coat will likely compound the issue because there are not enough solids present to promote adequate coverage.

If aggressive abrading is necessary, take care to use the finest grit possible. In addition, a final abrasion with a maroon conditioning pad can help even out the floor because it follows the contours of the wood.

Proper dry times

When a floor coating is applied, ample time is needed for the evaporation of solvents (or solvents and water in the case of waterborne finishes). In the early stages of development, the finish is permeable and "sponge-like".

If finish is applied over a partially developed base coat, application properties can be greatly affected. Solvents and/or water can easily penetrate into the still permeable base coat, causing flow out time to be significantly reduced. Application marks, lap lines and inconsistent sheens will likely result.

For best application properties, follow manufacturers' recommended dry times. A thoroughly dry base coat is harder for solvents and/or water to penetrate, allowing finish to remain fluid longer.

Environmental conditions can cause finish to dry slower or faster than stated on the actual manufacturers' specs. Carrying a hygrometer, as mentioned in the extreme environmental conditions segment, will give good indications as to how long it will take finish to dry.

Additionally, some moisture meters can be especially helpful in indicating whether a waterborne finish is fully dry. Be sure to use the type that are non-probing. ♦