

## Sanding and finishing

- Step 1: Prepare the Area

Cupboards, doorways, closets and any other areas or items where you are working should be protected from dust with plastic. Remove wall hangings, light fixtures, window coverings and anything else in the area that could be dirtied or damaged by your work. Putty nail holes from carpet (tack strip). This step also helps you find any metal staples or nails left over from carpet removal and such. Use a wood filler that is stainable and is the color of the floor. Prior to rough-sanding, remove quarter-round and/or baseboards for installations over wooden based subfloors.

- Step 2: Start with the Rough Sanding

The first step when sanding older floors is to choose an aggressive grit (like 24 grit paper) to level the boards one to another and remove imperfections if possible. The result is a fresh looking wood floor. We call this process rough-sanding. Don't be afraid to use new belts, and more than one.

On a newer floor, you might start with a less aggressive 50 grit. In handling the belt sander, the machine MUST be moving when you gently set the drum down into action to avoid digging holes in the floor that won't come out. As you near the wall, be extremely careful to pull up the drum BEFORE you hit the wall. You will be sanding forward and backward. Use care in your backward motion so you pull up the drum before you run into the wall. DO NOT RUN OVER YOUR ELECTRIC CORD.

With design flooring such as herringbone, marquetry or parquet tiles, you must sand in an "X" direction. This means that you would sand at 45° to the tiles and in opposite directions to allow for even leveling due to the multidirectional nature of the wood pieces.

- Step 3: Rough sand the Edges

Now you will sand along the walls, in the closets, and anywhere else the belt sander could not reach, using an Edge Sander. Start with a 24 grit on your Edge Sander and change your disc often. Level the floor and go over imperfections as needed. Work the machine in circles

or figure eights and with the grain as much as possible. Don't allow the machine to dig into the corners. Use extra care in those areas. Level sand out any drum marks.

- Step 4: Medium Sanding with Belt Sander and Edge Sander

Use the same procedure as above with 50 or 60 grit. The purpose of this step is to remove the deep cuts and grooves from the rough sanding.

- Step 5: Fine Cut with Belt Sander and Edge Sander

Use the same procedure as above with 80 or 100 grit. The purpose of this step is to smooth the floor in preparation for buffing.

- Step 6: Scrape Corners

The goal to scraping a corner is to remove old finish and level corner with the rest of the floor. The best way to achieve this is by having a very sharp scraper. We achieve this with a good, metal, 5cm-wide file you can find at a hardware store. Or you can flip your edge sander over, turn it on with 100 grit sand paper on, and gently grind the scraper to produce a sharp edge. Watch to keep the scraper level, not angled, and not to remove too much metal. Sharpen often, after every corner if needed. We liken it to sharpening a pencil, shaving the wood in the corners. You will have shavings. You can hand sand corners with 100 grit to blend.

- Step 7: Buffing

Use 100 grit screen under your buffer pad to blend the edges with the rest of the floor to get the surface as smooth as possible. Remember, there is two sides to a screen - so flip mid-way through - and use more than one screen for a larger area. Buff slowly and thoroughly. This machine does not dig like a sander, so don't worry about going over areas too much. The more you go over it, the smoother it gets. We recommend machines that have multiple discs buffing in opposite directions to give a scratch free finish.

- Step 8: Vacuum and Cleanup

Thoroughly vacuum the floor and other areas with wand and crevice device. We recommend a hair bristle or felt-bottomed wand to protect the floor. Use care if you use a plastic wand. Tack the floor with a damp cloth to remove any leftover dust particles. Your floor is now ready for staining, sanding sealer, hardwax oil finish or a first coat of polyurethane.

### Polyurethane coatings

- Step 9: Apply sanding sealer or 1<sup>st</sup> polyurethane coat

Remove loose fibers from lambs wool with a comb and tape. Concentrate especially on the ends. You don't want these fibers in your finish.

Stir the polyurethane or sanding sealer and fill the pitcher. The leftover sealer can be used for brushing edges. Thread the broom handle into the lambs wool. Work in 1 meter rectangles, parallel to the grain. Brush edges in that section 10-15cm from the wall. Pull the polyurethane with the grain to smooth it.

Pour some of the polyurethane out of the pitcher onto the floor in the center of this 1 meter section only. Use the T-bar to wet the entire section; then, make sure the T-bar head isn't too wet and pull the finish from one wall toward the opposite wall, and vice versa, to smooth the polyurethane and eliminate puddles.

If you have too much polyurethane, pull it out of the area with the T-bar, to be used in the next section of floor. Watch where you step! Keep working across the floor in this way. When working out of a room or in long hallways, you'll have to keep the T-bar a bit drier. Push it smoothly and away from you; at the end of a stroke, lift the T-bar head off the area, avoiding drips. If you throw drips, you can step in them. Just make sure to T-bar up your footprints, and then step onto a rug or towel.

When the entire floor is coated, let it dry overnight. To re-use your lambs wool and brushes, wrap them in plastic and store them in the freezer.

- Step 10: Buff the floor smooth

After the floor is dry, buff the edges with a vibe sander, sanding sponge, or even a folded over piece of sand paper to sand out any bumps in the finish and smooth it. Buff the remainder of the floor with a buffer or pole sander or vibe sander or by hand, if you like. Just get it smooth! Thoroughly vacuum the floor with wand and crevice device. Tack cloth the floor to remove any leftover fibers or dust.

- Step 11: Apply 2<sup>nd</sup> coat of polyurethane
- Step 12: Follow the same procedure as Step 9.
- Step 13: Apply 3<sup>rd</sup> coat of polyurethane

Repeat Step 10 and Step 11.

If the floor is in a very high traffic area, a 4<sup>th</sup> coat could be applied to give further protection.

The floor is finished. Wait one day to walk on the floor, and two days to move furnishings into the room. It is highly recommended that furniture pads are applied to the bottom of all furniture that rests on the floor.

### Hardwax oil finishes

Following step 8 after sanding:

- Step 9: Apply 1<sup>st</sup> coat of Hardwax Oil very thinly

Remove loose fibers from lambs wool with a comb and tape. Concentrate especially on the ends. You don't want these fibers in your finish.

Stir the Hardwax Oil in the can.

If you have too much Hardwax Oil, pull it out of the area with the T-bar, to be used in the next section of floor. Watch where you step! Keep working across the floor in this way. When working out of a room or in long hallways, you'll have to keep the T-bar a bit drier. Push it smoothly and away from you; at the end of a stroke, lift the T-bar head off the area, avoiding

drips. If you throw drips, you can step in them. Just make sure to T-bar up your footprints, and then step onto a rug or towel.

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- Step 11: Apply 2<sup>nd</sup> coat of Hardwax oil.
- Step 12: Follow the same procedure as Step 9.
- Step 13: Apply 3<sup>rd</sup> coat of Hardwax Oil.

Repeat Step 10 and Step 11.

If the floor is in a very high traffic area, a 4<sup>th</sup> coat could be applied to give further protection.

**Please remember to use Hardwax Oil very thinly.**

The floor is finished. Wait one day to walk on the floor, and two days to move furnishings into the room. It is highly recommended that furniture pads are applied to the bottom of all furniture that rests on the floor.

### Refurbishing old floors

1. The floor is checked for any gaps, cracks, discoloration and irregularities
2. In case any action is required, the preceding steps are followed:
3. The floor is sanded with a grit paper that corresponds to the amount of sanding required.

4. If the floor is generally in good condition, then a very high grit paper is used to just remove the upper coat and create a lock for the refurbishing coat.
5. If the floor is in bad condition with deep scratches, then it is sanded in 3 stages with a low, medium and then high grit paper to sand it down to the wood, where the wood is sanded to remove all scratches.
6. All gaps/cracks are filled with the special wood filler.
7. Any damaged pieces of flooring are removed and replaced before the final sanding.
8. The floor is then given the 1<sup>st</sup> coating which could be polyurethane or Hardwax oil.
9. The 1<sup>st</sup> coat is given at least 8 hours to cure properly.
10. The 1<sup>st</sup> coat is then slightly sanded, in the case of polyurethane coats, and just lightly buffed in the case of Hardwax oil.
11. The floor is cleaned for any dust and any minor gaps are re-filled and made ready for the 2<sup>nd</sup> coat.
12. The floor is then given the 2<sup>nd</sup> coating which could be polyurethane or Hardwax oil.
13. The 2<sup>nd</sup> coat is given at least 8 hours to cure properly.
14. The 2<sup>nd</sup> coat is then slightly sanded, in the case of polyurethane coats, and just lightly buffed in the case of Hardwax oil.
15. If the floor requires a 3<sup>rd</sup> coat, then it is slightly sanded again with a very high grit paper, cleaned for any dust and prepared for the 3<sup>rd</sup> coat.
16. The 3<sup>rd</sup> coat of either polyurethane or Hardwax oil can then be applied.
17. At least 8 hours must be given for the final coat to cure properly and the floor should not be used for a further 12 hours to ensure hardening of the top layer before any furniture is moved onto it.
18. The floor can then be protected with a polyethylene sheet just in case other works in the vicinity are being carried out.
19. In case a floor is heavily used, an extra coat could be applied but in most cases 3 coats are sufficient for heavy traffic areas.
20. During the maintenance period any or parts of the above steps can be carried out and not necessary all the steps.
21. The floor maintenance procedures must then be followed.