Water Based Polyurethane for Floors

Floor Finishing Guide
Hardwood floors provide years of beauty, warmth and elegance for your home. The Minwax® line of quality wood finishing and maintenance products will help you restore and preserve the richness of your hardwood floors, revitalizing their appearance and adding to the value of your home.

Minwax® Water Based Polyurethane for Floors is formulated to add warmth and richness to your floors. It provides the superior durability of polyurethane combined with all the advantages of a water-based finish, including low odor, fast dry time and water clean-up.

Minwax® Water Based Polyurethane for Floors, along with the instructions in this booklet and the directions provided with your sanding equipment, will help you achieve beautiful floor finishing results.

Steps for Floor Finishing:
1. Determine the type of floor finishing project
2. Assemble materials
3. Prepare the room and floor
4. Sand floor
5. Stain floor OR apply Minwax® Water Based Polyurethane for Floors Base Coat
6. Topcoat floor with Minwax® Water Based Polyurethane for Floors
Things to think about before you start:

- If your floors are cupped, bowed, or severely damaged, contact a flooring professional to address these issues before you start your project.
- Any wax or build-up on your floor must be removed before you start your finishing project. If your floor has been waxed, use mineral spirits to remove the wax before you sand.

Tip! Identifying a wax finish: put a few drops of water on your floor, and let them sit for ten minutes. Wipe up the water. If the water left a whitish spot, you have wax on your floor.

- If your floor is a factory pre-finished floor or a laminate floor, read the floor manufacturer’s instructions or contact the manufacturer before refinishing. Note that many laminate floors cannot be refinished.
- If you have a parquet floor, carefully read the instructions for sanding parquet floors that come with your sander, or else consult a flooring professional before sanding.

Determine the Type of Floor Finishing Project:

The condition of the floor will determine the exact steps that you will need to follow and the materials that you will need to assemble.

- Is the floor finish completely worn down to bare wood in high-traffic areas? Is the floor finish cracking or peeling? Is the floor stained or gouged? Do you want to change the color of your floor? Was the floor previously finished with shellac, wax, lacquer, or a stain that contained wax or stearates? If you answered yes to any of these questions, follow the directions in this booklet for “floors that need a complete refinishing”.
- Is the floor a previously finished floor in good condition and is not chipping, peeling or showing worn through areas? If you answered yes, follow the directions for “sand and recoat”.
- Is this new, unfinished flooring? If you answered yes, follow the directions for “new wood floors”.

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- Is this new, unfinished flooring? If you answered yes, follow the directions for “new wood floors”.

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Assemble Materials: Depending on the type of floor finishing project that you are doing, you will need the following materials:

### ALL PROJECTS
- Minwax® Water Based Polyurethane for Floors
- Lambswool applicator
- Synthetic pad applicator
- Metal can filled with water for disposal of any mineral spirits soaked rags
- Floor sander
- Sanding pad and sandpaper or screens in the grits recommended with your sander
- Electric palm/hand sander or sanding block
- Hand scraper (for corners, etc.)
- Clean, lint-free cloths
- Dust masks
- Safety glasses
- Mineral spirits or water for cleaning tools and wiping up sanding dust
- Hammer, nails and nailset
- Drop cloths, tape
- Pencil
- Wet/dry vacuum cleaner (optional)

### SAND AND RECOAT PROJECTS WILL ALSO NEED
- Minwax Water Based Polyurethane for Floors

### FLOORS THAT NEED A COMPLETE REFINISHING WILL ALSO NEED
- Minwax® Stainable Wood Filler (for filling minor nicks and nail holes in the wood)
- Minwax® Pre-Stain Wood Conditioner (use only if staining the floor, and only if your floor is pine or another soft or porous wood, or is maple)

**EITHER:**
- Minwax® Wood Finish™ stain (staining is optional; use only if you wish to change the floor’s color), or
- Minwax® Water Based Polyurethane for Floors Basecoat (use if the floor will NOT be stained)

### NEW WOOD FLOORS WILL ALSO NEED
- Minwax® Stainable Wood Filler (for filling minor nicks and nail holes in the wood)
- Minwax® Pre-Stain Wood Conditioner (use only if staining the floor, and only if your floor is pine or another soft or porous wood, or is maple)

**EITHER:**
- Minwax® Wood Finish™ stain (staining is optional; use only if you wish to change the floor’s color), or
- Minwax® Water Based Polyurethane for Floors Basecoat (use if the floor will NOT be stained)

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Prepare the Room and Floor:

### The Room:
- Remove all objects from the room, including furniture, drapes, pictures, knick-knacks, items in closets, vent covers, etc.
- Cover any permanent objects that you do not want to get dusty (chandeliers and other light fixtures, shelving, etc.) Make sure that any light fixtures are off.
- Snugly cover door openings with drop cloths to minimize the spread of dust. Remove these covers after sanding.
- Place a mat or cloth outside the entrance to the room so you can wipe your feet as you leave.
- Carefully remove the quarter round molding from the base molding, then remove the base molding.

**Tip!** Number each piece of molding on its back using pencil, and put the same number on the wall where you removed the piece. This way, you can put the pieces back in place more easily once the floor is done.
• Turn off air conditioning/heat to prevent dust from circulating throughout the house.
• Cover all vents.
• Open all windows for ventilation.
• Keep children and pets from entering the room.
• Read all warnings and safety precautions on labels before using products and equipment.

The Floor:
• Use a nailset to ensure all nail heads are recessed into the floor.
• Replace or repair any damaged boards.
• If the floor has been finished in the past and is not new wood, clean the floor using a gentle cleaner that does not leave residue, like Minwax® Hardwood Floor Cleaner. Allow the floor to dry thoroughly.

STEP 4 Sand the Floor:
• Your neighborhood hardware store, home center, and equipment rental center are good resources for renting sanding equipment. They can also give you advice and directions on how to sand your particular floor using their equipment. Before using the sanding equipment, read the operating manual and make sure you observe noted safety precautions.

Tip! When operating the sander, be sure to wear your dust mask and safety goggles.
Caution! Carefully follow the sanding directions provided with your sander. Improper use of a sander can damage your wood floor.

Each type of project requires slightly different sanding steps, and the use of different grits of sandpaper. The information that follows regarding sanding and sandpaper grits serves as a general guideline. Refer to the information that comes with your sander and follow the grits recommended by its manufacturer.

Tip! Do not use steel wool when using water-based finishes. Bits of the steel wool may come off. If they mix with the finish, they may rust and cause a discoloration. Instead, use sandpaper.
**General Sanding Tips:**

- Start the sander, then lower it onto the floor. Keep the sander moving, and overlap your passes.

- Start from a position about 1/3 of the way down the wall, so that about 2/3 of the floor is in front of you. Walk forward, then carefully lower the drum. Work your way down the room, raising the drum just before you reach the back wall. Walk backward and carefully lower the drum, sanding the area you just sanded again. Raise the drum just before you reach the place you started. Continue this process until 2/3 of the room in front of you is completely sanded.

- Turn the machine around to do the other 1/3 of the room. Position the sander against the opposite wall and facing in the opposite direction. Sand with the grain as you had done before, and use the same process until the room is completely sanded except for the edges. Overlap some of the area you’d already sanded to ensure an even appearance.

- Remember to move in the direction of the wood grain while sanding. Move back and forth with the grain until the entire floor is sanded.

- Use a sanding block or an electric palm/hand sander to sand the edges of the floor with the same grit of sandpaper you just used with the floor sander. Start in a corner, and run left to right along the wall. Rotate the sander in a circular fashion, using long, oval circles when running with the grain, and tighter, more rounded circles when running against the grain. Be sure to overlap the floor sander's passes to ensure an even appearance. Continue until all edging is complete.

- Repeat this process with the floor sander and the hand sander for each grit of sandpaper.

- Go slowly, and always keep moving. Never stop moving the sander while it is in operation unless you first raise the sander off the floor, or else the sander may damage your floor.

- Remove all sanding dust. Any dust in the room may settle into your wet finish, causing blemishes. Wait for the dust to settle, then vacuum the floor several times, clean the window sills, door frames, and anywhere that sanding dust might have settled. Finally, use a lint-free cloth dampened with mineral spirits or water to wipe the floor and remove the remaining dust.
Follow the sanding directions for your floor type:

**FLOORS THAT NEED A COMPLETE REFINISHING**

Sand floor to bare wood to remove existing stain and finish, starting with coarse to medium grit sandpaper and finishing with fine grit sandpaper.

- Begin with 40 - 60 grit sandpaper, or use the grit recommended for your sander.
- Sand the floor for a second time, using 80 grit sandpaper, and following the same techniques as you just used for 40 grit.
- Wait for the dust to settle, then vacuum the dust. Fill any small dents or nail holes with Minwax® Stainable Wood Filler, following label directions.
- Sand the floor for a third time with 100 grit sandpaper. If floors are not going to be stained, then follow this sanding with a final sanding using 120 grit sandpaper.
- Wipe or vacuum up all dust on baseboards, windows, sills, doors, door frames and other surfaces. Clean from the highest surface to the lowest, in that order.
- Thoroughly wipe the floor with a clean cloth dampened with water or mineral spirits and allow to dry.
- Proceed to Step 5 in this booklet.

**SAND and RECOAT:**

- Sand floor lightly using 120 grit sandpaper.
- Be careful to abrade the surface only. Do not sand through to bare wood.
- Wipe or vacuum up all dust on baseboards, windows, sills, doors, door frames and other surfaces. Clean from the highest surface to the lowest, in that order.
- Thoroughly wipe the floor with a clean cloth dampened with mineral spirits and allow to dry. Wiping with mineral spirits will help remove any residue left from wax or other cleaning products.
- Proceed to Step 6 in this booklet.

Tip: For a “sand and recoat”, it is best to use a circular, random orbit or vibrating-type sander, rather than a drum or belt sander. Drum and belt sanders can be too aggressive for a sand and recoat job.

Note: If the sanding process has exposed any bare wood, apply Minwax® Water Based Polyurethane for Floors Base Coat, following label directions, after cleaning the floor and before applying the topcoat. If you need to apply base coat, go to Step 5 in this booklet.
**NEW WOOD FLOORS:**

- Sand the floor with 100 grit sandpaper. If floors are not going to be stained, then follow this sanding with a final sanding using 120 grit sandpaper.
- Wipe or vacuum up all dust on baseboards, windows, sills, doors, door frames and other surfaces. Clean from the highest surface to the lowest, in that order.
- Thoroughly wipe the floor with a clean cloth dampened with water or mineral spirits and allow to dry.
- Proceed to Step 5 in this booklet.

DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

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**STEP 5: Stain Floor OR Apply Minwax® Water Based Polyurethane for Floors Base Coat:**

If desired, apply Minwax® Wood Finish™ stain following label application directions. If the floor will not be stained, apply Minwax® Water Based Polyurethane for Floors Base Coat following label directions. The base coat seals the wood grain, preventing a tannin reaction (discoloration) between the wood and the Minwax® Water Based Polyurethane for Floors topcoat. If you are staining, there is no need to use the Base Coat because the stain itself will prevent the tannin reaction. Instead, you should apply the Water Based Polyurethane for Floors directly over the stain.

**Staining:**

Floors only need to be stained if you want to change their color. If you are happy with your floor’s existing color, you do not need to stain it. Instead, you will need to apply the Minwax® Water Based Polyurethane for Floors Base Coat. Note: Since stain must be able to penetrate the wood of the floor, stain can only be applied to new, unfinished flooring or to floors that have been sanded according to the directions given in the sanding section for “Floors that need a complete refinishing”.

- Choose your stain color. Minwax® Wood Finish™ offers twenty beautiful colors of wood stain, all appropriate for use on hardwood floors.
• Test your stain color on an inconspicuous area of the floor, like inside a closet, to ensure that the color is what you want. Remember that different woods take stain differently, so testing the color is important. In addition, the clear topcoat that you will later apply to your floor will give it a slightly warmer tone.

• If your floor is made of soft or porous wood, like pine, or is maple, pre-treat the floor with Minwax® Pre-Stain Wood Conditioner to ensure that the floor takes the color evenly. Follow the label directions for the Pre-Stain, and apply the stain within two hours of the Pre-Stain.

• Applying stain is easy, but be sure to read and follow the label directions and cautions on the stain.

• Stir the stain thoroughly before and occasionally during use.

• Start in a back corner and apply the stain in the direction of the grain with a clean, lint-free cloth. Follow the label directions. Be careful to plan your exit so you don’t stain yourself into a corner!

• To ensure color uniformity, allow no more than three minutes for stain to penetrate.

• Remove excess stain with a new, clean, lint-free cloth, wiping in the direction of the grain.

• For a darker color, wait 4-6 hours, then apply a second coat of stain, following the steps above.

• Once the floor is stained, let it dry for at least 24 hours before applying Minwax® Water Based Polyurethane for Floors.

CAUTIONS: CONTAINS ALIPHATIC HYDROCARBONS. Contents are COMBUSTIBLE. Keep away from heat and open flame. VAPOR HARMFUL. Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. FIRST AID: In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed, do not induce vomiting. Call Poison Control Center, hospital emergency room, or physician immediately. DELAYED EFFECTS FROM LONG-TERM OVER-EXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth
Start in a back corner. Be careful to plan your exit so you don't coat yourself into a corner!

Apply a thin coat of the Water Based Polyurethane for Floors Base Coat using a synthetic pad applicator. Maintain a wet edge, where one area of base coat meets another, to avoid lap marks.

Tip: Apply the Base Coat in the direction of the wood grain.

Allow to dry for two hours.

Note: Do not sand the Base Coat!

Tip: On white oak floors, which can be especially susceptible to tannin reactions, apply a second coat of Base Coat.

Base Coat: Minwax® Water-Based Polyurethane for Floors Base Coat needs to be used if bare wood is being finished, and that wood will not be stained.

Note: If bare wood has accidentally been exposed during the “sand and recoat” process, treat the floor with the Base Coat prior to applying the Water Based Polyurethane for Floors.

Top Coat
Applying the clear topcoat is your final step! Minwax® Water Based Polyurethane for Floors provides the superior durability and warm richness of a traditional polyurethane with the convenience of a water-based product. Because it is water-based, it has little odor, dries quickly and cleans up with warm water.

Minwax® Water Based Polyurethane for Floors is a professional formula, and is available in three sheens: Floor Gloss, Floor Semi-Gloss and Floor Satin. Like most professional floor finishes, the gloss sheen is slightly flatter than the gloss sheen of traditional polyurethanes. Your choice of sheen is a matter of personal preference. The sheen does not affect the product's durability.

Before use, be sure to read all label directions and cautions.

Minwax® Water Based Polyurethane for Floors should be at room temperature for best results.

• Base Coat should be at room temperature for best results.
• Gently invert the container 3-4 times to mix the product. Invert the container before and occasionally during use. Do not shake or stir the product, as this may cause bubbles in the finish. Just gently rock the container up and over your shoulder to invert it, then turn it back upright 3-4 times.
• Gently invert the container 10-12 times to mix the product. Invert the container before and occasionally during use. Do not shake or stir the product, as this may cause bubbles in the finish. Just gently rock the container up and over your shoulder to invert it, then turn it back upright 10-12 times.

1. Start in a back corner. Be careful to plan your exit so you don’t coat yourself into a corner!

Note: The product will appear cloudy in the container. However, it dries clear!

• Pour the Minwax® Water Based Polyurethane for Floors directly onto the floor.
• Spread out a thin coat of Minwax® Water Based Polyurethane for Floors using a new synthetic pad or lambswool applicator. Maintain a wet edge, where one area of top coat meets another, to avoid lap marks. Preferably, you would overlap into the finish you previously applied by several inches. Try to feather in your start and stop places with your applicator.

Tip: Apply the product in the direction of the wood grain.

• Allow finish to dry at least two hours.

Tip: Before you walk on the floor, be sure that it is not tacky to the touch and can be walked on without damaging the surface. Wear soft, flat shoes.

• Apply a second coat following the steps above.
• Between the second and third coat, sand lightly with 220 grit sandpaper, being sure not to scuff through to bare wood.

Tip: You only need to sand between the second and third coats because sanding is not needed except prior to the final coat. However, if a prior coat of the finish has dried for more than 24 hours, sand lightly with 220 grit sandpaper, being sure not to scuff through to bare wood. Remove the sanding dust and continue.

• Apply a third coat using the steps above.

Note: For added protection you may apply additional coats. However, be sure to sand only prior to the final coat. Sanding is not needed except prior to the final coat or if a previous coat has dried for more than 24 hrs.

**Tips to Improve Your Finish:**

• Remove loose fibers from your applicator by rinsing it with water prior to use. Wring it out thoroughly.
• Be sure to remove all dust from sanding and other sources. If your room is at all dusty, the dust will settle into the finish as it dries and may cause the finish to look or feel bumpy.
• Finish floors in moderate weather (temperatures in the 70° F range) so that the finish dries appropriately. Finish applied in cold weather dries more slowly than finish applied in more moderate weather.
• Work when humidity is low (at or below 50% relative humidity) and there is no rain in the forecast, as high humidity extends dry times.
Once your floor is done, place mats at each entrance to your home to collect the dust and debris from shoes that otherwise might scratch your new floor.

Put floor protector pads or glides on the bottom of furniture so that moving it does not scratch the floor.

Do not walk across your floor in high heels, as these heels can dent your wood floor.

Trim your pet's nails. Untrimmed nails can cause scratches in your finish.

To clean floors protected by Minwax® Water Based Polyurethane for Floors, we recommend a gentle cleaner such as Minwax® Hardwood Floor Cleaner.

**Product Safety**

For your safety and the safety of those you work with, always read the safety warnings that are printed on the product labels and follow them carefully. In addition, be mindful of the safe way to dispose of rags and other waste. Be sure to keep waste and finishing product out of the reach of children.