



HARDWOOD FLOORS
Finishing and Refinishing



Floors

Wood floors add natural richness, beauty, distinctive value and a warm charm to any room of your house. Whether you are refinishing existing wood floors or installing new hardwood floors, Premium Quality ZAR® Wood Finishing Products provide everything needed to complete the project yourself.

ZAR® Wood Stains and ZAR® Polyurethanes make finishing hardwood floors easy. And best of all, ZAR® gives you professional results you can achieve yourself.

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PREMIUM QUALITY ZAR® WOOD STAIN



Interior Oil Based ZAR® Wood Stain is a super fast drying formula that dries in 3 hours. ZAR's "Controlled Penetration" eliminates streaks, lap marks or blotches. Available in 20 natural wood tones, 5 decorator colors plus a tint base for custom coloring. Covers approximately 800 square feet per quart.



ZAR® Ultra Max Wood Stain is a waterborne oil-modified formula with Core/Shell technology for deep tones, low odor, fast drying and water clean-up. Available in 6 natural wood tones and a tint base. Covers approximately 400 square feet per quart.

PREMIUM QUALITY ZAR® POLYURETHANES



ZAR® Classic Wood Finish is a high solids, VOC compliant durable protective finish for beautiful results in commercial and residential applications. Available in gloss, semi-gloss and satin sheens. Covers 400-500 square feet per gallon. Fast drying formula allows for a 2-coat application in just one day.



ZAR® Quick Dry Polyurethane Sanding Sealer (For use under oil-based polyurethane) is a fast drying sanding sealer for interior wood floors and woodwork. Dries in one hour on bare wood. Available in semi-gloss and satin sheens. Covers 500-600 square feet per gallon. Apply 1 or 2 coats before topcoating.



ZAR® ULTRA Oil Based Polyurethane Clear Wood Finish is a super fast drying clear wood polyurethane finish. Dries in 2 hours on bare wood. Brushes on to create a tough, abrasion resistant finish. Self-leveling for a smooth finish without brush marks. Resists scuff marks, alcohol and household chemicals. Available in gloss, semi-gloss, satin and antique flat sheens. Covers 500-600 square feet per gallon.



ZAR® ULTRA Max Polyurethane is a waterborne oil-modified polyurethane. This environmentally safe, clear wood finish is specially formulated to protect and beautify floors. This self-leveling, fast drying, low odor formula features superior hardness and mar resistance for outstanding wear and durability. **DUAL DRYING TECHNOLOGY** makes the polyurethane dry by coalescing and oxygen cross-linking for a harder "through cure". "Exotic Hardwood Approved." Available in gloss, semi-gloss and satin sheens. Covers 500-600 square feet per gallon.



Aqua ZAR® Water-Based Polyurethane is an environmentally safe, non-yellowing, clear wood finish specially formulated to protect and beautify your cabinets, furniture, wall paneling, woodwork and floors. Self-leveling for a smooth finish. Dries crystal clear. This fast drying, low-odor formula resists most household chemicals and abrasions. Aqua ZAR's full-bodied formula brushes on like a conventional polyurethane for maximum durability and beauty. Available in gloss, semi-gloss, satin and antique flat sheens. Covers 400-500 square feet per gallon.



ZAR® ULTRA Max Polyurethane Sanding Sealer (For use under waterborne oil-modified polyurethane) is an environmentally safe, clear wood finish. This self-leveling, fast drying, low odor formula features superior hardness and mar resistance for outstanding wear and durability. "Exotic Hardwood Approved." Available in clear and natural amber sheens. Covers 300-400 square feet per 100 oz. Apply 1 or 2 coats before topcoating.

Know Your Surface

Materials Needed



Whether you are putting new wood floors in your home or office, or refinishing existing ones, ZAR is the perfect choice.

WOOD FINISHING REQUIRES PREPLANNING

Measure the floor to determine the quantity of materials needed. Refer to **Materials Needed** on page 5.

The condition of your floor will determine the steps to follow.

- **New unfinished flooring** – Decide if you would like to stain your floor or simply apply a clear finish over natural wood. Proceed to **Sanding New Unfinished Wood Floors** page 8.
- **Clear finished wood in good condition** – This is when your floor finish is showing signs of wear, but the finish is still hard and smooth. Return the luster to your tired floor with a light sanding and a top coat. Proceed to **Sand and Recoat** page 8.
- **Clear finished wood floor in poor condition** – If your floor meets any of the following criteria;
 - If you wish to change the color of your floor.
 - The floor finish has begun to peel and crack.
 - The finish is worn down to bare wood in high-traffic areas.
 - Floor appears stained or gouged.
 - Finishes that contain shellac or lacquer. Identify shellac or lacquer by using a little nail polish remover on an inconspicuous spot. Shellac or lacquer will soften.

Proceed to directions for **Floors that Need a Complete Refinishing** page 8.



new/bare



good



poor



Factory prefinished floor and parquet flooring – Read manufacturer's instructions or contact a floor professional.

To achieve the best finish, it is a good idea to have everything you will need before you start. Choose the floor finish and gather materials needed.

SMALL REPAIRS

- Drop cloths, tape
- Mineral spirits
- Stir sticks
- Sanding block and sandpaper
- Hammer, nails and a nail set
- Tack cloth or microfiber cloth
- Clean lint-free cloths
- Wet/Dry Shop Vacuum
- ZAR® Wood Patch
- Plastic putty knife
- Respirator or dust mask
- Metal container with lid for waste disposal

STRIPPING

- ZAR® Paint & Varnish Remover
- Hand scraper (for corners, etc.)

SANDING

- Drum floor sander and sanding pads
- Edge sander or hand sander
- Good quality carbide scraper
- Ear plugs
- Knee pads
- Safety glasses

ZAR® ULTRA OIL-BASED POLYURETHANE AND ZAR® CLASSIC

- Clean bristle brush, lambswool applicator or ZAR® applicator pad

ZAR® ULTRA MAX POLYURETHANE

- Lightweight T-bar with a synthetic applicator or foam pad

STAINING

- ZAR® Wood Stain (optional)

How much product will you need?

Measure the square footage of the floor you are finishing. Multiply the length of the floor area by the width to arrive at the total square feet. For example, 12' long x 9' wide = 108 square feet.

Check the product labels for spreading rate. Every label will specify how much area it will cover. For floors, we recommend 3 coats of polyurethane.



Preparation

Tips Before Sanding

- Remove all items from the room including furniture, drapes, pictures, etc.
- Cover permanent objects that you don't want to get dusty.
- Snugly cover door openings with drop cloths to minimize the spread of dust.
- Place a mat outside the entrance to wipe feet.
- Carefully remove each molding from the wall. Loosen with a pry bar from top to bottom and avoid any damage or breakage. Hint: Number each piece of molding on its back, and put the same number on the wall where it came from so you can put the pieces back in place when floor is complete.
- Turn off air conditioning/heat to prevent dust from circulating throughout the house.
- Plug all forced air heating/air conditioning vents and duct work to prevent dust from accumulating.
- Open windows for ventilation.
- Read all warnings and safety cautions on labels before using each product and equipment.
- Inspect the floor surface. Remove all tack strips and countersink any nail heads that may be protruding. Most wood floors are tongue and groove, with the nails in the grooves. Top nailed floors should have all nails set below surface before sanding.
- Check for loose boards. Replace any wood that may be rotted or severely stained.
- Clean the floor thoroughly before sanding. Sanding creates heat so any dirt, grease or wax will be burnished into the wood and may cause adhesion and drying problems.
- Products used on the surface containing waxes or existing wax build up must be removed prior to sanding. To identify a wax finish let a few drops of water sit on the floor finish for 10 minutes and wipe off. If the water leaves a whitish spot, there is wax present.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

- Choose proper sanding equipment which you can rent from your local tool rental company or hardware store. They will provide operating instructions, sanding pads or belts. Read the operating manual and safety precautions. Each sanding step requires different grits of sandpaper. Refer to the sander manufacturer's directions.
- Keep an eye on the sanding dust, if it lessens considerably it is time to replace the sandpaper.



- If you are inexperienced with refinishing hardwood floors, consider hiring a professional to do the sanding for you. These are powerful machines which can cause irreparable damage by gouging the wood if not handled properly.
- Always sand in the direction of the grain. Work in strips the full length of the floor.
- Start the sander then lower it to the floor. Sand with the grain and overlap passes to ensure an even appearance.

- Never stop moving the sander while in operation, even for a moment, without first raising the drum from the floor. Stopping a running sander can cause scratches and gouges.
- Sand the edges with an edge sander or hand sander where the drum sander can not reach. Scrape the finish in areas the sander can't reach using a good quality carbide scraper. Just remember to sand and scrape with the grain.



- Between sandings, check for loose nails or staples and set them below the surface. Remove all sanding dust with a vacuum or tack rag.
- V-Groove flooring has little grooves running the length of the floor. Floors with this feature are difficult to sand with the floor sander and should be stripped and hand sanded/scraped to remove the existing finish.





NEW UNFINISHED WOOD FLOORS

Clean floor thoroughly before sanding. Always sand in the direction of the grain. Sand floor using 80 grit sandpaper. Vacuum all dust on window sills, doors, and other surfaces. Start with the highest surface and work your way to floor. Wipe the floor with a clean cloth dampened with mineral spirits and allow to dry. Proceed to **Stain the Floor** page 11.

If you choose not to stain your floor, then use 120-150 grit sandpaper for the final sand. Vacuum all dust on window sills, doors, and other surfaces. Start with the highest surface and work your way to floor. Wipe the floor with a clean cloth dampened with mineral spirits and allow to dry. Proceed to **Protect the Floor** page 11.

SAND AND RECOAT

Clean floor thoroughly before sanding. Always sand in the direction of the grain. Sand floor lightly using 120-150 grit sandpaper. Be sure to gently abrade the surface and do not sand through to the bare wood.

After sanding wipe dust from doors, windows, and edges of moldings. Start with the highest surface and work your way to the floor. Vacuum floor thoroughly. Remove any trace of dust with a cloth dampened with mineral spirits and allow to dry. Proceed to **Protect the Floor** page 11.

FLOORS THAT NEED COMPLETE REFINISHING

Clean floor thoroughly before sanding. Always sand in the direction of the grain. Sand to the bare wood to remove existing stain and finish. It is best to start with rough grit sandpaper. Begin with a course grit such as 40 grit. Between sandings check for loose nails or staples and set them below the surface and remove all sanding dust with a vacuum. For the second sanding use 60 grit. Vacuum all sanding dust. Before your final sanding fill any small dents or nail holes with ZAR® Wood Patch. Wood floors need cracks to expand with humidity. Avoid over filling with wood patch. Fill only damaged areas.

If the floor is to be left natural pre-tone the ZAR® Wood Patch with ZAR® Wood Stain, selecting a wood tone stain approximating the natural color of the floor. Remove some patch from the container and stir in a small amount of stain directly into the wood patch. This pre-toned wood patch will minimize any lighter area or "halo" effects.

Use 120-150 grit for the final sanding. The edges must be sanded with an edge sander or hand sander because the drum sander can not reach edges or corners. Scrape the old finish away in areas the sander can't reach using a good quality carbide scraper.

After sanding wipe dust from doors, windows, and edges of moldings. Start with the highest surface and work your way to the floor. Vacuum floor thoroughly. Remove any trace of dust with a cloth dampened with mineral spirits and allow to dry.

If the floor is to be left natural proceed to **Protect the Floor** page 11.

ZAR® WOOD STAIN COLORS

OAK				
PINE				
OAK				
PINE				
OAK				
PINE				
OAK				
PINE				
OAK				
PINE				

ZAR WOOD STAIN DECORATOR COLORS

OAK					
PINE					

ZAR® ULTRA MAX WOOD STAIN COLORS

190 BRAZILIAN CHERRY	191 CAYENNE PEPPER	192 ESPRESSO	193 EBONY	194 JAMAICAN RUM	195 WHEAT

These chips have been reproduced as accurately as possible in process color lithography.



STAIN THE FLOOR

If you prefer the natural color of the wood, omit this step and proceed to **Protect the Floor** page 11.

ZAR® Wood Stain provides rich, uniform color. ZAR's Controlled Penetration eliminates streaks and lap marks. Test your stain on an inconspicuous area to ensure that the color is what you want. Be sure to apply the corresponding ZAR Polyurethane finish to determine final appearance.

Apply ZAR Wood Stain. Proper ventilation should always be maintained while applying wood stains and finishes. It is a good idea to wear a respirator when using oil-based products. Plan the staining process so you end at an exit.

Stir ZAR Wood Stain thoroughly before and during application. Apply the stain in the direction of the grain. Use a clean lint-free cloth or lambswool applicator to wipe stain onto the wood using the cracks between the boards as a guide. Maintain a wet edge and work to the end of the board or boards you are staining. Then go over the same section with a clean lint-free cloth in the direction of the grain to remove excess stain for an even color tone. Repeat this process until the floor is completely stained. Use a clean cotton swab to wipe on ZAR® Wood Stain in any edges or tight areas missed and wipe off the excess with a clean cloth. Allow to dry thoroughly. Drying time may be affected by temperature, humidity and amount of stain applied. If a darker color wood tone is desired, apply a second coat.

Note: When applying **ZAR® Ultra Max Wood Stain**, follow label instructions carefully. Water based wood stains require a different application technique. In order to maintain a wet edge, you must apply the stain liberally by brush or synthetic pad and wipe off quickly.

IMPORTANT

DANGER: Rags, steel wool or waste soaked with ZAR Interior Wood Stain and Polyurethanes may spontaneously catch fire if improperly discarded. Immediately after use, place rags, steel wool or waste in a sealed water-filled metal container.



PROTECT THE FLOOR

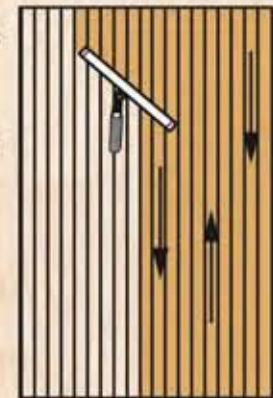
To protect your floor and give it a pleasant wood glow apply Premium Quality ZAR® Polyurethane. Follow manufacturer directions. Ensure proper ventilation while applying polyurethanes. It is a good idea to wear a respirator when using oil-based products. Turn off all open flames (do not forget pilot lights), shut off air conditioning and heating units. Plan the polyurethane process so you end at an exit or a doorway.

Important: Keep an eye on your polyurethane finish using reflected light. If puddles or bubbles occur, fix quickly by brushing back over the surface.

Applying Premium Quality ZAR® ULTRA Oil Based Polyurethane and ZAR® Classic. Gently stir. Do not shake. Apply straight from the can. Use a clean synthetic pad, bristle brush or lambswool applicator. Flow ZAR on in the direction of the grain. Avoid over brushing which may trap air bubbles in the finish and result in streaks. Allow 2 hours drying time for Ultra, 4 hours for Classic. Sand lightly and remove sanding dust between coats. Apply thin coats at a rate of 500-600 square feet per gallon for Ultra, 400-500 square feet per gallon for Classic. Apply 3 coats of Ultra and 2 coats of Classic. Allow final coat of Ultra to dry 4-6 hours, 4 hours for Classic. Clean brushes and tools immediately after use with mineral spirits.



Applying Premium Quality ZAR® ULTRA Max Waterborne Oil-Modified Polyurethane. Apply when air surface temperatures are between 60° and 90° F and humidity is less than 60%. Gently stir if required. Do not shake. Apply straight from the can. Use a clean synthetic pad, fiber brush or a light weight T-Bar with a synthetic applicator and spread the finish towards the opposite wall following the wood grain. Hold the T-Bar applicator using a snowplow technique to maintain a wet edge. When approaching the end of a run, turn the applicator towards you and spread out excess material parallel to the wet edge. Feather out all turns. Apply thin coats at a rate of 400-500 square feet per gallon. Do not allow to puddle or over brush the finish. Allow 2 hours drying time between coats. Sand lightly and remove sanding dust with a tack-cloth or microfiber cloth between coats. Apply 3 coats. Allow final coat to dry 4-6 hours. Clean brushes and tools immediately after use with warm soapy water.



Ensure Adequate Drying Time for a Beautiful Finish

Allow floors to dry 24 hours before subjecting to light foot traffic; 3-5 days before moderate (normal) traffic or moving furniture. To avoid marring floor, lift, and place furniture. One week is required before maximum resistance is achieved. Do not cover floors with rugs before one week has elapsed. If floor should become marred or scratched, simply sand lightly using fine sandpaper, vacuum all sanding dust, wipe clean with a tack cloth or microfiber cloth and apply another coat to repair the finish.

Maintaining Your Floor

WHAT TO DO

- Wipe up spills immediately.
- Use doormats outside room entrances and in front of high traffic areas like the kitchen sink and refrigerator to keep dirt and grit off your floor and to prevent damage and excessive wear.
- Place runners and area rugs (with slip-resistant backings) along high traffic areas.
- Lift and place all furniture whenever possible.
- Move heavy appliances and furniture by sliding them on a piece of thick carpet placed face down.
- Use furniture leg protector pads under all furniture legs.
- Keep the relative humidity in your home between 45-55%.
- Protect your floor from direct sunlight over long periods.
- Wash floors with a slightly damp mop using warm water.
- If more than water is needed to get the floor clean, use 1/4 cup of mild detergent, such as Spic & Span® or Mr. Clean® in 1 gallon of water to damp mop the floor.

WHAT NOT TO DO

- **Do not** use abrasive or harsh chemicals such as ammonia, dish washing detergent, powdered all-purpose cleaners, Endust®, Pledge®, Murphy's Oil Soap® or any type of wax or silicone base products on your floor.
- **Do not** allow water to stand on your floor for any length of time.
- **Do not** walk across your floor in spike heels or with any sharp object protruding from your shoe.
- **Do not** allow heavy furniture to rest on small metal tips or hard plastic domes.
- **Do not** allow untrimmed pet nails to cause scratches in your finish. Trim your pet's nails.

REJUVENATE YOUR FLOOR

ZAR® Ultra Max Floor Rejuvenator is a fast drying interior water-borne oil modified polyurethane that comes in an easy pour plastic bottle. Applies easily to restore and renew the beauty of wood that has become dull, scratched or show signs of wear. Perfect for restoring worn polyurethane floor finishes, shellac, lacquer and other factory prefinished wood surfaces. "Exotic Hardwood Approved." Available in gloss and satin sheens. Covers 200-300 square feet per 32 fl. oz.



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