



Revised November 12, 2024

Amazon, Seattle, Washington

INSTALLATION, FINISHING, AND MAINTENANCE INSTRUCTIONS FOR End-Grain Mesquite Rounds. Other species on request.

ATTENTION INSTALLERS

PLEASE READ THE ENTIRE SPECIFICATION BEFORE STARTING THE INSTALLATION:

We suggest you start a log for your project. Measure and record the moisture content of the rounds on arrival at your facility. For accurate readings probe into the side of the rounds, and not in the end grain. Measure and record the environmental conditions in your storage area. If the temperature and humidity at the project is consistent with the specifications, deliver the flooring and again record the moisture content of the wood. Measure and record the temperature and humidity conditions in the project space daily, but at least weekly. You'll need to know this information to determine the length of acclimation, if any before spreading mastic and installing rounds.

All jobsite conditions should comply with Kaswell specifications, including but not limited to humidity levels and sub-floor conditions.

Be sure that our end grain *mesquite* rounds meet your expectations. When possible, we suggest loose-laying several square feet of the rounds where they will be installed.

Do not proceed with the installation if the visual appearance, color, or manufacturing quality does not meet your expectations. Placement of Kaswell flooring into the mastic constitutes an acceptance of the materials.

Mesquite is one of the most beautiful and enduring hardwoods available. *Mesquite* is also one of the hardest. *Mesquite* is very stable and has therefore become one of the best choices possible for end grain flooring. Available 1/2" depth minimum, in 2" to 8" diameter pieces, with or without bark.

A *Mesquite* tree yields finished wood with warm, red, tan tone, and swirling grain, a natural beauty for any room. The pores of *Mesquite* give it a closed, irregular, swirling grain. Combined with occasional character defects such as ingrown bark and mineral streaks, the resulting grain is both striking and unpredictable.

Our suppliers source *mesquite* trees already cut by farmers or ranchers clearing their land.

Mesquite trees may rot or be burned if not purchased. Mesquite is not grown or harvested for commercial use, but rather, Mesquite grows wild and spreads by animal droppings. Therefore, FSC Mesquite is not available.

Mesquite trees grow slowly, seldom reaching heights of 35 feet. If damaged when young they can become multi-stemmed shrubs. If the tree is not disturbed, and a single trunk develops, seldom will the resulting tree be capable of producing even one 1" x 8" piece of lumber, eight feet long. As a result, mesquite logs are typically short from three to six feet. Because Mesquite trees rarely grow tall and straight, making end grain blocks and rounds from Mesquite may just be their best use! Or, you can put them in the BBQ!

Stability

The Mesquite tree does not shrink as it ages, having survived in desert climates with unpredictable water supply. Mesquite's volumetric shrinkage percentage ranks near the lowest among hardwoods. This uncommon hardwood property enables us to fill rounds with tile grout without concern for issues of expansion.

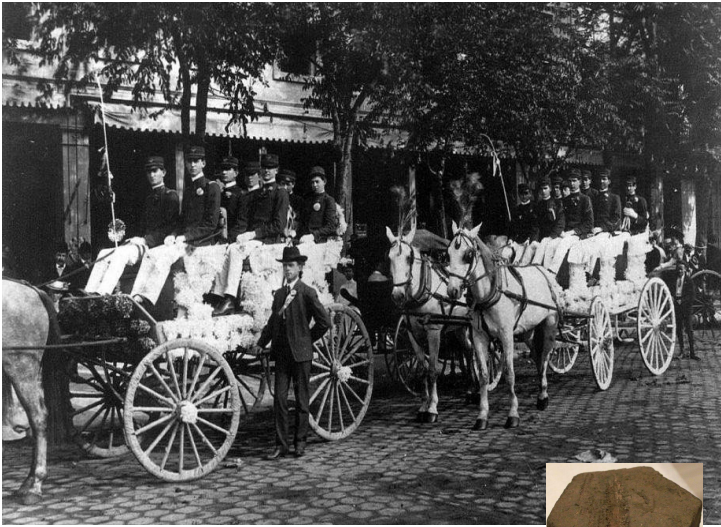
High Surface Hardness

Mesquite has a Janka surface hardness of 2,336 psi, which is approximately equal to that of hickory and almost twice that of Oak and maple. Mesquite is highly resistant to high heels and small steel wheels.



A comparison of hardness and shrinkage values of Mesquite vs other common species.

	Mesquite	White Oak	Walnut	Cherry
Compression parallel to Grain (psi)	8220	7440	7580	7110
Compression Perpendicular to Grain (psi)	3360	1070	1010	690
Side Harness (lb)	2336	1360	1010	950
Radial Shrinkage (%)	2.2	5.6	5.5	3.7
Tangential Shrink age(%)	4.7	10.5	7.8	7.1
Volumetric Shrinkage (%)	2.6	16.3	12.8	11.5



Mesquite Hexagon Exterior Blocks, Circa 1900
 Mesquite blocks were once used in Texas as street pavers.
 Rumor has it the horses were very happy walking on end grain
 Mesquite!



ACCLIMATION FOR ALL KASWELL INTERIOR WOOD FLOORING PRODUCTS

The purpose for acclimating wood flooring is to allow the moisture content of the flooring to adjust to normal conditions; the temperature and humidity that will prevail once the facility is opened, and the permanent heating, ventilating, and air conditioning (HVAC) system is up and running.

Before Mesquite is delivered, the job site must be checked to determine if it is ready. The structure should be fully enclosed, with doors and windows in place, and interior climate controls operational for at least 48 hours to stabilize the moisture conditions of the interior.

Wood flooring should not be delivered until all wet-work is completed.

In most cases if conditions are not stable, acclimation could be harmful to the installation. Acclimation could dry the blocks too low if the humidity were too low. In so doing, you might install the blocks too dry during the heating season, and have problems during the more humid months. However, rarely is this of concern with *Mesquite*.

If you know the Equilibrium Moisture Content (EMC) of wood in your region, the wood might already be at the proper moisture content, and acclimation for any length of time may not be necessary. The installer should have a clear understanding of the EMC in order to determine the length of acclimation. This requires knowing and recording the moisture content of the wood at the time of delivery, and what the expected moisture content will be at equilibrium. The flooring is manufactured at 8-10% mc target.

At equilibrium the moisture content of wood neither gains nor loses water because it has reached equilibrium with the vapor pressure of the surrounding atmosphere. Changes in relative humidity and temperature of surrounding air cause both seasonal, long term, and daily short-term changes in the moisture content. Long-term changes are gradual as moisture slowly penetrates the wood, while short-term fluctuations influence only the wood surface. Protective coatings slow the changes in moisture content, but ultimately the wood will be in equilibrium.

We are often questioned about the humidity being too high or too low. Humidity maintained above 60-70% at normal residential temperatures can adversely affect wood components. Humidity sustained at or above this level can result in an EMC of 12% or more with associated expansion. Humidity maintained at or below 25-30% can adversely affect wood components and result in an EMC below 6%. This condition can cause greater than normal shrinkage with associated cracks. (Source: Wood Handbook U.S. Department of Agriculture, Forest Products Laboratory).

Ideal conditions for all wood flooring would be to acclimate and install at the average level of humidity in your particular facility, which should be in 35-55% range. (Source: National Wood Flooring Association Wood Flooring Installation Guidelines and Methods, revised 05/2012, page 10, article B-1 Wood's Comfort Zone. As a general rule, with geographic exceptions, wood flooring will perform best when the interior environment is controlled to stay within a relative humidity range of 30-50%, and a temperature range of 60° to 80° F. In some climates, the ideal humidity range might be higher or lower, for example 25-45% or 45-65%. We would be pleased to discuss with you length of acclimation for your particular installation.

NOTE: For all species including Mesquite we always recommend at least 2 days of acclimation prior to installation. We never deliver and install on the same day.

INSTALLATION

All rounds must be installed in mastic (Bostik's Best, Mapei 980, or other non-water based wood flooring mastic). The rounds must be sanded to the desired grit, and field finished. *Mesquite* rounds are not available pre-finished, but we do offer *Mesquite* in our strip block format that can be pre-finished.

The choice of finish should be determined by the type of facility, but most any finish can be used. For a more detailed explanation of the installation, sanding, and finishing procedures, please refer to our Master Field Finish Specification, pages 3 through to 7.

In addition, we offer the following installation guide:

Is the floor to be installed over concrete or over a plywood sub-floor? If concrete, test a section to make sure it's dry. If not, the mastic may not bond to the concrete and the wood will absorb the moisture. An easy way to check for moisture is to tape down a one foot square piece of clear plastic, sealing all sides. Wait 24 hours to see if moisture condenses below the plastic.

If it does, the slab moisture content is too high. If you are installing your floor over plywood, follow the plywood manufacturer's guidelines for spacing. Plywood surfaces must be properly supported from below so there is little to no deflection at the surface. Be sure to install a proper vapor barrier under the plywood. The installation can begin once the sub-flooring is properly prepared.

Empty all rounds from boxes and mix them on the job site. The rounds should be in the 8-10% moisture content range when received. We suggest a bond test with your chosen adhesive before installation.

Spread mastic with a 3/16" V notched trowel. Install rounds in mastic either against each other or spaced apart. Try not to glue rounds to each other. There will be spaces between rounds after installation. These spaces can be filled before or after sanding. Leave a minimum 1/2" expansion space around the perimeter. This space can be filled with pre-molded cork, or left open if covered by shoe molding. We suggest installing rounds as close to each other as possible, but not a requirement.

SANDING

When rounds are ready to be sanded you may need to start with 36 to 40-grit paper on a drum or belt sander to flatten the floor. Continue to drum sand with 60, 80, and 100-grit drum paper. Then disc sand with 100-grit disc paper, and screen with 120-grit screens. NOTE: Sanding and finishing sequences may change for rounds. We find it very effective and helpful to sand the surface and apply some finish for rounds protection before filling.

FILLING ROUNDS:

Option 1:

Once sanding is complete, we suggest two to three applications of urethane or oil finish be applied to the round's surface by lamb's wool applicator or roller. Once the urethane or oil is thoroughly dry, then fill the voids with a tile grout or other hard filler (in your choice of color). Consider creating a texture or an irregular level of the filler. Filler used for rounds must be hard enough to support ladies high heels. Care must be taken to wipe the excess filler from the surface.

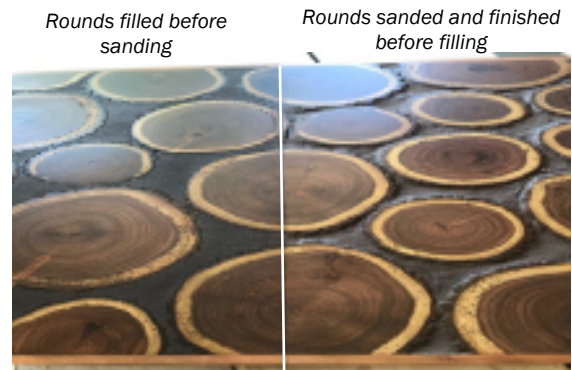


Mesquite Rounds at the ceiling w/no sapwood, no bark, loosely placed in the translucent panels. Mesquite Rounds on the floor.

When the filler has dried, then screen the round's surface lightly with 100 grit screens. Tack-rag to remove surface dust/filler residue and apply additional applications of finish. In this sequence the joints will be lower than the block surface, which we believe enhances the appearance of the flooring.

Option 2:

Fill immediately following installation. If filling is completed first, before sanding, the final results will be a flatter floor.



Mesquite Rounds with sap wood and bark, brown tile grout and urethane finish

FINISHING

There are many quality finishes on the market. One of the easiest to apply is urethane, either solvent based or water based.

We prefer the appearance and maintenance requirements of penetrating oil finishes, or oil modified urethanes. Our 2-6-1 pigmented oil is very popular on Mesquite because it enhances the beauty of Mesquite without changing its' color. Stains or pigmented oils can be used to change the tone before clear oils are applied

We recommend Woca Oil finishes, Procoat finishes, or another VOC compliant oil finish. See WoodcareUSA.com for more information about Woca. See Procoat.com for more information about Procoat finishes.

If the sanding has been completed and if the filling is left for a later date, and if the finish choice is to be an oil, then make the first application of oil finish by roller or paint pad. The first application is considered the primer coat. Its role is to act as a base for subsequent oil applications. Choose your starting area and pour the oil into a paint tray. Spread the Oil with a 1/4" nap paint roller and extension pole. Roll the oil as if you are painting the floor. Continue to spread oil until finished. Do not buff the oil into the floor, as this forces too much oil into the wood. The oil would be too deep, which could cause later bleed back and prolonged drying. YOU MUST BUFF OFF ALL EXCESS OIL. If you are not sure you have buffed enough, buff again. You cannot over buff.

Coverage should be approximately 130-170 sq. ft. per liter. It is best to let the primer application dry and harden a minimum of 48 hours, but 24 hours is acceptable.

The second and third application of Oil should be buffed into the floor with or without Kaswell green patina discs and 3M white pads until an even sheen has been obtained. Without the green discs you will not achieve optimum sheen results. Coverage should be approximately 300 sq. ft. per liter. Let this application dry and harden a minimum of 24 hours.

A fourth application (if needed) may be made with or without green patina discs and 3M white pads. But, we suggest the fourth application be made after filling.

Woca Oils are Volatile Organic Compound FREE. In 2007, new regulations were introduced in the European Union regarding VOC levels in coating materials. All Woca products fulfill these regulations. We feel that this is an important step in the protection of our working and living environment. Woca VOC free oils have the following features:

- Positive influence on the working area and living environment, Improvement of product characteristics and application methods. No effect on indoor-air quality.
 - Woca products are certified by independent laboratories, the German Institute for Biological Building Materials, and are in accordance with DIN-Norm 53-160. Woca WoodCare Denmark products meet or exceed the most stringent US standards for volatile organic compounds.
- Woca Leed Rating Woca is plant-based non-emitting finish, which complies with South Coast Air Quality Management standards and always qualifies for the following Leed credits.

Environmental Features	Leed Credit	Lead Points
Rapidly Renewable Materials	Materials and Resource (MR) Credit 6	1
Low-Emitting Adhesives and Sealants	Indoor Environmental Quality (EQ) Cr. 4.2	1

Avoid spontaneous combustion. Water-soak all oily cloths after use and place outside of buildings and away from combustible materials.

If there are any questions or concerns, please do not hesitate to contact us before or during installation and finishing. Call or email for technical support. Kaswell Flooring Systems cannot be responsible for results of installations made by others.

We reserve the right to change specifications without notice.



Mesquite Rounds and step, Wieden & Kennedy Advertising, NY.

AFTER CARE INSTRUCTIONS FOR WOCA OIL FINISHED KASWELL END GRAIN FLOORING

DO NOT CLEAN BY WET MOPPING

Recommended Cleaning Products: Woca Soap Spray, Woca Refresh Spray, and Woca Commercial Oil Cleaner

To protect your investment and to ensure that your Kaswell oil finished flooring maintains its beauty, with years of lasting service, we offer the following recommendations for care and maintenance.

CAUTION: DIRECT WETTING WILL DAMAGE THE OIL FINISH AND THE WOOD FLOORING

The best way to care for your oil finished flooring must include daily sweeping. Clean spills as they occur with a clean dry cloth, and use Woca Natural Soap Spray to spot clean the area. Use of other manufacturer's cleaning products are not advised.

The beauty of an oil finished floor is that it can be revitalized or refinished without the necessity for re-sanding. If your flooring has NOT been regularly cared for with Woca Soap Spray or Woca Refresh Spray, it will definitely benefit from a machine buff cleaning with the Woca Commercial Cleaning Oil. The Woca cleaning oil will keep the floor properly saturated with oil, helping to keep dirt at the surface rather than allowing it to settle in the wood. With proper ventilation and application, Woca Commercial Oil Cleaner work can be done in the evening and walked on the following morning.

FOR DAILY AND WEEKLY CARE

Daily sweeping is always recommended to remove sand or other abrasive particles that will harm the finish. Use a micro-fiber mist mop, or spray Woca Natural Soap Spray directly from the bottle to remove dirt and debris. Wipe dry immediately.

FOR MONTHLY OR QUARTERLY CARE

Use Woca Refresh Spray in high traffic areas, by mist mop application, or from the spray bottle itself. Wipe dry immediately.

CAUTION: Woca Soap Spray and Woca Refresh Spray contain water, and therefore **MUST** be used by spray application only. Both products are available in white or natural.

FOR BI-ANNUAL, ANNUAL, OR ANYTIME CARE & CLEANING

In place of soap spray and refresh spray, use Woca Commercial Oil Cleaner. The cleaning oil contains no water, and therefore cannot harm the wood. The cleaning oil requires use of a slow speed buffer, buffing pads, and cotton cloths or towels.

Two methods of application:

1. Spray the Commercial Oil Cleaner on a small area, then buff with soft absorbent cloths. Do not let sprayed areas rest for more than one hour. Be sure to buff off all excess oil. You can not over buff. So, if you are not sure you've buffed enough, buff again...Or
2. Soak a soft cloth in the Commercial Oil Cleaner, then wring it out. Place the cloth below a 3M white pad, and place the 3M pad and cloth below a standard 1100 RPM buffer. Buff clean with the cloth, then dry buff with a new cloth. Repeat the process if needed. Contact a Kaswell Representative for our video displaying this maintenance process. Again, if you are not sure you've buffed enough, buff again. Any excess oil left on the surface will attract dust and dirt. This can lead to surface marks such as footprints. Approximate drying time: 8-12 hours. High traffic commercial spaces would benefit from more frequent planned maintenance with the Commercial Oil Cleaner. For standard residential care or for light commercial office space, schedule Commercial Oil Cleaner application once every 12 months or when needed.

WARNING: Rags, pads, or other waste products soaked with Woca Commercial Oil Cleaner may self ignite if improperly discarded. Remember, there is no water in this product, so immediately after use place all rags and waste in a sealed water-filled bags for proper disposal.

KASWELL FLOORING

Top 10 maintenance tips:

1. Maintain proper humidity conditions, ideally in the 35-55% range, but not so important with Mesquite.
2. Vacuum lightly or sweep daily to remove sand and grit.
3. Apply carpet or felt protection to chair legs.
4. Wipe spills promptly.
5. Use walk off mats at entrance doors.
6. Re-apply finish at the appropriate time.
7. Use mist mops for urethane finishes.
8. Avoid using wax or oil soap products.
9. Use only maintenance products furnished and recommended by the chosen finish manufacturer.
10. Call or email Kaswell with questions.



Mesquite Rounds, Disney

KASWELL END GRAIN ROUNDS GRADING AND SIZE TOLERANCE

Wood is a natural product, subject to numerous variations in grain, color, hardness, and dimensional stability. Machine tolerances are measured by us during manufacturing only, with tolerance of +/- .02". Moisture can enter and exit rapidly through the end grain. And so, after manufacturing the rounds can gain or lose moisture, thus changing their measurement, though only slightly. Rounds, as well as other wood items, can change in moisture content and dimension during and after fabrication, while awaiting shipment, in transit, and at the job site. For this reason, as well as others, it is important that the installer measure and record the moisture content of the rounds at time of delivery. Doing so is also necessary to determine the length of acclimation time, if any, for your project. The target moisture content for all our wood flooring products is 8-10%, with a 5% allowance for pieces outside that range up to 13%.

There is a grading allowance for hardwood flooring shipments of not greater than 5% of the pieces mis-graded or off-graded. However, end grain rounds and blocks are not graded at all. Therefore, no description that we can make, and no sample that we can provide could encompass all possible variations. However, there is an ASTM specification D1031-86 for industrial pine blocks, which includes block description and size tolerance. The ASTM size tolerance was written as follows: "Permissible variations from the specified dimension shall not exceed 1/16". We recognize that this is for industrial application, and may not be appropriate for high end commercial and residential applications. ASTM does not grade pine blocks, but they do describe them in detail, and we have adopted their standard for all of our end grain species for commercial and residential applications as follows: "Blocks and rounds should be sound and well manufactured and square edged, and shall be free from unsound, loose or hollow knots, knot holes, and other conditions such as shakes and checks that could be detrimental to their performance". In most cases, season checks in end grain flooring are not detrimental to their performance and so we do not consider checks to be a defect.

We can produce rounds that are check-free, sap-free, bark free, knot-free, and pitch pocket-free. These natural conditions should be addressed when ordering. We encourage you to speak with us about your particular project and specie choice. At this time we produce rounds in Mesquite only.



Amazon, Seattle, Washington

KASWELL LIMITED WARRANTY

Seller warrants for a period of two years from date of delivery that Kaswell Mesquite rounds are free from defects which would make the flooring unfit for use for which they are intended. Seller's only obligation during this warranty period is, at its sole option, to either repair, replace, refund or credit the purchase price of the flooring, or part thereof, found to be so defective. At the conclusion of this warranty period the Seller shall be under no further obligation whatsoever. This warranty is void in the event of negligence, abuse, abnormal usage, misuse, accidents, improper installation, improper maintenance, or any circumstances or conduct beyond the control of the Seller, most particularly job-site conditions. Seller is not liable for consequential damages arising out of or in connection with the sale or use of Kaswell wood flooring, including but not limited to all labor and/or material charges or loss of income or profit relating to the goods in any way whatsoever.

CONDITIONS OF SALE

All pricing is per sq. ft. or surface measure with no milling or cutting waste figured.

All orders are subject to availability of stock for prompt delivery.

Special orders are non-cancelable and non-refundable.

A 15% restocking and handling charge is applicable for all authorized returns.

