



## KASWELL FLOORING SYSTEMS

Next Generation Flooring, LLC  
*The wood block flooring specialist*

### **Specification: Pine-Natural Finish**

Revised 6/7/14

#### **Installation, finishing and maintenance instructions:**

Individual Eastern Yellow Pine, Western Yellow Pine, Antique Pine and White Pine End-Grain Block Flooring w/clear urethane finish. For commercial and institutional use.

**Please read the entire specification before commencing with the installation.**

#### **MANUFACTURE**

The blocks shall be manufactured from air-seasoned or kiln dried Pine lumber, meeting the standards of the American Society for Testing and Materials D1031-81.

Blocks shall be solid or laminated  $\frac{3}{4}$ ", 1", 1  $\frac{1}{4}$ ", 1  $\frac{1}{2}$ ", 2", 2  $\frac{1}{2}$ ", 3" or 4" in depth, (nominal dimensions), and in face sizes of 3" x 6", 4" x 6", 3" x 8", or 4" x 8", (nominal dimension). Permissible variations from the specified dimensions shall not exceed  $\frac{1}{16}$ " in depth and  $\frac{1}{8}$ " in width. Blocks may also be untreated.

Season checks in the blocks shall not be considered defects.

Blocks may be untreated, treated with Bardac 2280 in a petroleum solution, Conosol, or linseed oil, assuring adequate distribution of preservative throughout the wood, to no less than 2 lbs. retention per cubic foot of wood.

They shall be manufactured and installed in strict accordance with the following specification and under the direction of Kaswell Flooring Systems authorized representative.

#### **INSTALLATION**

For acclimation purposes to insure maximum results of finished products, all wood block shall be stored at the job site in the room area to be installed, either in palletized form or loose-scattered if possible, for a period of from three to ten days prior to being laid.

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**NOTE:** Length of acclimation period may be adjusted at the discretion of the installing contractor and is based upon atmospheric conditions at the time of year. In any event, the temperature of the room area and the building must be uniformly maintained at not less than 65 Degrees Fahrenheit from before the first block delivery and through acclimation as well as during and after the installation. (Temporary heating units, such as space heaters, etc. are not acceptable). The maximum relative humidity at any time shall not exceed 60%. Adequate overhead lighting shall be provided and maintained by others.



The blocks shall be installed on a thoroughly cured concrete slab or carefully constructed plywood base (exactly the depth below the finished floor level corresponding with the depth of the block used). The concrete base must be smooth and level, and contain no ridges, waves or projections that would provide an uneven surface for the blocks. The plywood base must be level and solid, and be fastened properly to the underlayment with screw-type nails.

This base shall be cleaned thoroughly of dirt, construction mortar, etc. and/or other debris, by the General Contractor, after which the surface shall be given a prime coat of KASWELL'S S-2705 Adhesive by squeegee method and then allowed to dry.

After the primer has dried, the surface shall be given an application of KASWELL'S S-2705 Adhesive as received in its original container, by trowel or squeegee, leaving film of between 3/16" and 1/8". Coverage should approximate 35 sq. ft. per gallon.

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The blocks shall then be laid tightly together with the end-grain showing on the surface. Where blocks are to meet all walls, columns, machine pads, etc., install a pre-molded cork expansion joint material. Cork strips  $\frac{1}{2}$ " to  $1\frac{1}{2}$ " should be used against all walls and columns, unless concealed by shoe moldings or other base. Cork strips will not be needed if the perimeter space is concealed by the base shoe molding. Place temporary wooden strips along the walls and columns equal to the width of the void to be created. After installing blocks flush to the strips, and at the end of the day remove the temporary strips, leaving a uniform void for expansion. In aisle ways and other narrow areas where blocks meet carpet or other flooring, the expansion void can be omitted. Schluter strips should be used at block edges against carpet or other adjacent flooring materials.

The rows of blocks shall be kept straight and parallel and all joints must be broken by a lap of at least one-inch. Every other course shall start with one-half block to provide the proper lap. At the end of each course the last piece of block to be installed shall be no smaller than one-inch.



## **FILLING AND FINISHING**

The time schedule for filling and finishing will be based on the season of the year and the section of the country.

## **WINTER INSTALLATION**

After the blocks have been installed, they shall be allowed to further acclimate for at least seven days. The floor shall then be sanded, making use of drum sanders using #3  $\frac{1}{2}$  open coat sandpaper. The sanding shall consist of four or eight cuts depending upon the finish required. It is recommended that the first four cuts be made across the rows of blocks, the second four cuts made in the same direction as the rows. After the blocks have sufficiently contracted in place, and all openings around each block have been determined to be adequate, the floor shall be filled with KASWELL'S Granular Flexible Filler, working the particles into and filling all voids, removing all excess filler from the surface. The surface shall then be disc sanded using #3  $\frac{1}{2}$  open coat sandpaper, after which all surplus sanding dust and filler particles shall be swept carefully from the surface. Care must be taken not to dislodge the particles of filler from the joints between blocks.

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The floor surface shall then be given the first coat of clear urethane, either solvent based or water based, by flood method using a soft sponge blade squeegee or paint pad. After approximately five to eight hours of drying time, the floor shall be inspected and spot filled as necessary so as to provide 100% filled floor. The floor surface shall then be re-coated (either two or three additional coats) of clear urethane as required to furnish a film finish prior to the application of the final coat. Prior to the final coat (No. 5 or No. 6), the entire floor area shall be disc sanded using #100-grit sandpaper then carefully cleaned to remove all dust and other particles from the surface. The final coat of shall then be applied. The finished floor shall then be allowed to dry between 24 and 36 hours prior to any traffic. It is recommended that a period of approximately 48 hours be allowed before the floor is ready for normal use.

### **SUMMER INSTALLATION**

Promptly after the blocks have been installed, the floor shall be sanded, making use of drum sanders and using #3 ½ open coat sandpaper. The sanding shall consist of four or eight cuts depending upon the finish required. It is recommended that the first four cuts be made across the rows of blocks, with the second four cuts in the same direction of the rows. Immediately following the drum sanding, the floor must be disc sanded, also with #3 ½ open coat paper.

After the surface has been properly cleaned, the floor shall then be given two or three separate coats of clear urethane, allowing approximately five to six hours drying time between coats. The application shall be made by lamb's wool applicator or spray method, and care must be taken to apply the coatings evenly so as to produce a uniform finish. The floor can then be placed in temporary service.

After maximum contraction of the block has taken place (usually when the building heat is turned on the following winter) the floor shall be filled with KASWELL'S Granular Flexible Filler, and all excess removed from the surface. The floor shall then be disc sanded with #1 or #2 grit disc papers and the surface swept clean.

Additional coats of finish shall then be applied as required to furnish the proper film finish. Prior to the final coat (No. 5 or No. 6), the floor surface shall be carefully cleaned, thereby removing all dust or other particles from the surface, after which the final coat shall be applied.

After proper drying and curing the floor surface is ready to be placed in service. It is recommended that a period of approximately 48 hours be allowed before the floor is ready for normal use.

**ALTERNATE:** No. 1 if necessary, the acclimation period, either before or after installation may be waived. In either case, if it is required to install the floor when the relative humidity and/or temperature conditions exceed the specified limits, it may be necessary to apply the floor filler at a time other than that specified in the winter and summer installation procedures.

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**NOTE:** Because of the possibility of wide variations in working conditions, the season of the year, the condition of the blocks when first delivered (i.e. moisture content); deviations and adjustments in the acclimation and installation schedules may be required. Decisions for these specification adjustments should be made only by qualified or experienced personnel. Therefore, Kaswell Flooring Systems cannot accept the responsibility for results of installations made by others. Requests for substitutions of materials or deviations of installation procedures by installing contractors shall be made in writing and directed to the Architect, Engineer or Owner involved in the quality and performance of the finished work.

### **APPLY OIL FINISH**

We recommend using Woca Oil, sold per liter, or some other VOC compliant oil finish. See [WoodcareUSA.com](http://WoodcareUSA.com). After blocks have been sanded to 180-grit, apply the first coat of oil. The first application should be Woca Master Oil, and is considered the primer coat. Its role is to act as a base for the 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 floor and the oil base will be too deep, which may cause later bleed back and prolonged drying. When finished, rest your roller in the paint tray or on cardboard. Coverage should approximate 130-170 sq. ft. per liter. Let the primer coat dry and harden a minimum of 48 hours.

The second coat is done with Woca High Solid Master Oil. This coat may be mixed with the sanding dust accumulated in the drum sander bag. This mixture can be spread and forced into the voids with a sponge trowel. Buff with a red Norton (or similar) pad under a 175 rpm buffer. Remove all excess oil-oil/filler mixture with rags or with a towel under the buffer. Continue buffing until an even sheen has been obtained. Coverage should approximate 140-170 sq. ft. per liter. Let this application dry and harden a minimum of 24 hours.

For a third coat, place a white Norton pad (or similar) under the buffer, with three Patina discs, or with a Woca Polishing Cloth under the pad if a slightly lower sheen is desired. Pour a capful of Woca Master Oil into the whole of the white pad and start polishing until the oil does not continue to spread as you pass the buffer back and forth across the work area. The floor should appear silky, with an even look, with no oil spray or droplets visible. Pour more oil onto the floor as needed and continue polishing. Overlap work areas to ensure an even finish with no spray residue from previous passes. Repeat the process until the floor is finished. Coverage should approximate 1,250 sq. ft. per liter. The Master Oil will usually pre-harden in 4-6 hours. Allow the oil to cure 24 hours before placing rugs and furniture on the floor. For a fourth coat, repeat the process of the previous coat.



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**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 a plant-based non-emitting finish, which complies with South Coast Air Quality Management standards and always qualifies for the following LEED credits.

Environmental Feature	Leed Credit	Lead Points
Rapidly Renewable Materials	Materials and Resources (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. After Oil Finish application(s) are complete, the surface can be top coated with Urethane. If urethane is applied, no future oilings can ever be made unless stripping back with sanding machines.

### APPLY URETHANE FINISH

Apply one or more applications of urethane finish, solvent-based or water-based. Solvent-based urethanes are preferable, but water base urethanes can also be applied. Check with the chosen manufacturer for more details. Four applications of a urethane may be needed. Apply thin coats until the surface is uniformly sealed. We recommend Bona Woodline Satin solvent-based, or Bona Traffic finish. See [bonakemi.com](http://bonakemi.com). NOTE: There are many excellent finishes for wood flooring. The choice is many times made according to the experience of the workmen, but in all cases the finishes should be a commercial or industrial brand. Coverage rates on finishes will vary depending on the wood specie. We suggest checking with us before purchasing your chosen finish.

**If there are any questions or concerns, please do not hesitate to contact us before or during installation and finishing. Call or e-mail 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.**

## **CARE & MAINTENANCE FOR YOUR WOOD BLOCK FLOOR**

To protect your investment, and to ensure that your KASWELL FLOORING SYSTEM maintains its beauty with years of lasting service, we offer the following recommendations for care and maintenance.

**For Oil Finished Flooring:** Lightly clean with Woca Commercial Oil Cleaner. Re-oil by spray, towel off immediately, and buff with standard buffer with soft pads. We can supply 3M pads if needed. Keep the flooring free from dirt and abrasive particles by daily sweeping or vacuuming. Use a treated flat mop or regular dust mop. Soft buffing at will. The resins in the oil will become harder over time, which will densify the wood. Wax can be added for higher gloss. Woca videos are available on request.

**For Urethane Finished Flooring:** Keep the surface free from dirt and abrasive particles by daily sweeping, using a treated flat mop or regular dust mop. Under no circumstances should water be permitted to remain on the flooring more than 10 minutes, either from spills or from washing. Routine cleaning is best accomplished with a damp mop. Be sure no puddles are created or left on the surface. Soft steel wool buffing and waxing can be added. However, if waxes are used, they will make future re-coating with urethane more difficult. An acrylic “after market” product can be used to “dress up” the surface. To refinish with the same urethane used originally will first require screening by rotary disc type sanding machine. Tack-rag dust and recoat.

### **Annual maintenance**

For Woca oil finishes, see [WoodcareUSA.com](http://WoodcareUSA.com). For other oil finishes after thorough cleaning, apply finishing oil lightly again, being sure penetration is 100%. Buff as usual. Disregard oiling if it does not penetrate. As the oils age, they will harden, and dry buffing will increase luster. Urethanes will require screening before re-application. Check with the chosen manufacturer for maintenance products.

### **AT A GLANCE, KASWELL’S TOP 10 MAINTENANCE STEPS:**

1. Maintain proper humidity conditions, ideally in the 35-50% range.
2. Vacuum 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. Reapply finish at the appropriate time.
7. Only use damp mops. Never use wet mops.
8. Avoid using wax or oil soap products.
9. Use only maintenance products furnished and recommended by the finish manufacturer.
10. Call or e-mail Kaswell regarding your flooring.

## **KASWELL LIMITED WARRANTY**

Seller warrants for a period of two years from date of delivery that Kaswell flooring is free from defects, which makes the flooring not fit for use for which they are normally 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, 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 the blocks, 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 on all authorized returns.