

DESIGN AND CONSTRUCTION GUIDELINES AND STANDARDS

DIVISION 9 • WOOD AND PLASTIC

09 64 00 • WOOD FLOORING

SECTION INCLUDES

Wood Flooring
Bamboo Flooring

RELATED SECTIONS

06 10 00 Rough Carpentry
06 20 00 Finish Carpentry
09 90 00 Painting

TECHNICAL STANDARDS

National Wood Flooring Association NWFA <http://www.woodfloors.org>
Forest Stewardship Council <http://fscus.org>

MATERIALS



Solid hardwood flooring has great longevity, is very durable, can be re-sanded up to three times and can be re-finished many times over. The lifespan of solid hardwood flooring is fifty years plus, far above the life span of other interior floor finishes. Specify FSC Certified solid hardwood flooring from North American sources.

Maple is very durable, better than oak which is not as impact resistant; oak strip flooring, however, is very acceptable. Under certain situations where the building's conditioning varies greatly, maple is known to shrink and leave gaps between boards.

High and medium grades are to be specified over lower grades of #2 common or 3rd grade which tend to have open knots and shorter lengths. High and medium grades are to be selected based on desired style, color variation and cost effectiveness.

Engineered wood flooring which is assembled from thin layers of hardwood and a plywood backing for stability should be limited to conditions where moisture is of particular concern. The top layer must be a minimum 1/4" thick, solid hardwood.

Parquet flooring is not acceptable because it is too vulnerable to damage.

Laminate, veneer and bamboo flooring are not acceptable because they cannot be re-sanded and have a limited life span. Laminate flooring is most often compressed cardboard with a wood picture under a formica surface. Laminated or veneered hardwood floorings have also been found to fail prematurely and should be avoided.

DESIGN

For new construction, including modular construction, wood flooring can be used except in wet locations such as bathrooms, kitchens, laundries, etc.

When installing strip flooring over a concrete slab, provide a means to protect the flooring from moisture. Consider sleepers or a plywood sub-floor.

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Site-finished wood flooring is preferred over prefinished wood flooring because it can be buffed and recoated without an entire sanding. It is also smooth and easily cleanable.

Factory prefinished wood flooring is beveled at the edges which can hold dirt. The finish, although very durable, cannot be recoated without sanding. However, in certain situations in which the sanding, dust and fumes from installation of site-finished flooring is an issue, prefinished flooring may be considered.

Design the transitions to other flooring types to provide flat floors and eliminate tripping hazards.

EXECUTION

Hardwood flooring manufacturers advise that the wood flooring material be allowed to acclimate in the same environment as the room in which it will be used prior to installation.

Install flooring boards perpendicular to the floor joists over 15 pound felt or rosin paper covering the entire sub-floor. Leave a space between the wall and the floor for movement associated with expansion and contraction. Cover the space with a wood base to match the flooring material.

Site finishing should be accomplished by sanding and buffing floors to a smooth and level surface, free of sanding marks and in proper condition to receive the finish specified. Finish oak or maple flooring with a sealer and 3 coats of polyurethane. The first 2 coats are to be a gloss finish and the last coat is to be a satin finish. Sand the floor between coats with progressively finer sandpaper. Properly vent the space during the finish and curing processes.



Low to no VOC finish coatings such as Polyureseal BP by American Formulating & Manufacturing Company and Bona Series waterborne polyurethane are available and may be considered. When using water-based sealers, apply several additional coats of finish as required to resist water or other liquid penetrations.

Factory finished flooring is to be installed after other finishing operations, including painting, have been completed. Provide certificates that products are formaldehyde free.

When re-sanding existing wood floors, verify that the wear thickness is not less than 3/32". Areas that are too thin to sand will need to be replaced.