

# Product Specification: WOOD FLOORING PLANKS

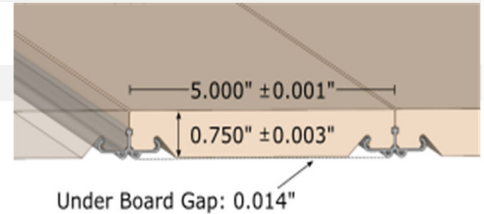
## 100% American made, sustainably sourced, 3/4-inch solid

### Appropriate Uses

Residential and commercial finished flooring surfaces where temperature and humidity are controlled for human comfort; 65-85 degrees (F) and 35-50% RH

### Dimensions, Weights & Tolerances

- Planks range in length from 2' to 4' in 6-inch increments
- Plank width is five inches +/- 0.001 inches; custom options available
- Plank height is 3/4-inches (OR 5/8 inches) +/- 0.003 inches
- Average Plank Weight is 3.5lbs (OR 2.92lbs) per square foot



### Material Types

**Species:** Ash, Cherry, Hard Maple, Hickory, Red Oak, White Oak, Walnut

**Source Timber:** FAS, F1F or better – North American Secondary Forest Sources Only; No Tropical Lumber

- FSC certified available upon request w/ additional charge

### Finishes (Prefinished)

**Stains / Colors:** Clear, Gray, Light Brown, Dark Brown

**Finish / Protection:** UV-cured 100% solids polyurethane; Paraffin wax on bottom and all four sides; No VOCs

### Expansion Scaling

- The specific expansion properties for wood varies based on relative humidity and temperature.
  - Steller Floors will accommodate changes within the normal human comfort zone of 35% - 50% humidity as a rule of thumb. If your circumstances will commonly exist or fluctuate outside that range, our technical team will help you determine how to accommodate extra variability.
- Along the length of the board: There is minimal expansion in this direction (less than 0.125 inch per 20 feet). If there is unusually long dimension to the space, it is best to align boards in this direction.
- Perpendicular to the length of the board: Allow one half inch per 20 feet, up to 40 feet. Such lateral expansion is easily accommodated by spacing beneath the wall surface itself or baseboard trim of typical depth. For dimensions exceeding 40 feet, call for an expert consultation.

### Wear, Moisture & Fire Resistance

- Finished, wear surface uses a satin UV-cured 100% polyurethane coating (2.5 mil thick) which provides well-established, commercial grade hardness. This finish is stronger than oil and water-based, site- or factory-finished polyurethane
- Satin finish is optimal for maintaining a bright, clear looking sheen
- Aluminum oxides are not used because their use reduces the lifetime of the floor during subsequent refinishing
- Planks are sealed on all sides to minimize moisture intrusion through direct exposure or humidity swings
- As a low-risk surface, wood flooring is exempt from fire performance evaluation per section 804 of the International Building Code

### Installation Requirements

- Floating: Patented milling and PVC clip snaps planks together
- No nails, glues, special equipment, or skilled labor
- Flat subfloor to 3/16-inch deviation in a 10ft radius
- Fully removable, movable

### Environmental

**LBC Contributions:** DECLARE ID: SLR-0001; LICENSE EXPIRATION 01 AUG 2023

- LIVING BUILDING CHALLENGE COMPLIANCE:
- I-13 RED LIST (DECLARATION STATUS): LBC RED LIST APPROVED
- I-14 RESPONSIBLE SOURCING: AVAILABLE WITH FSC COC, LOW RISK WOOD

### LEED Credit Contributions:

- BDC/IDC Sourcing Raw Materials (2), Embodied Carbon (1), Material Ingredient Optimization (1)
- IDC Design for Flexibility and Disassembly (2)
- LEED Innovation Timber Traceability (1), Low-carbon Building Materials (2), Circular Products (1)

### Net-Zero (EPD Underway as of Mid-2022; WAP Consulting):

Trees capture CO<sub>2</sub> as part of photosynthesis by storing carbon and releasing oxygen back into the atmosphere.

- Hardwoods average 47.5% carbon by weight
- On average, a square foot of hardwood weighs 3.5lbs
- 0.47 X 3.5lbs = 1.6625lbs of carbon captured per square foot of Steller Floor

**CO<sub>2</sub>e:** CO<sub>2</sub> equivalency ("CO<sub>2</sub>e") is the equivalent amount of CO<sub>2</sub> that is no longer in the atmosphere and is now stored as carbon.

- The atomic weight of a molecule of CO<sub>2</sub> is 44. Carbon is 12
- The atomic weight ratio of oxygen to carbon in a molecule of CO<sub>2</sub> = 44/12 = 3.67
- CO<sub>2</sub>e = 3.67 X 1.6625lbs of carbon per square foot = 6.101lbs CO<sub>2</sub>e

### Carbon Captured, CO<sub>2</sub> Equivalency of Carbon Stored (CO<sub>2</sub>e)

- Every square foot of a Steller Floor stores 1.6625lbs of carbon
- That is equivalent to 6.1lbs of CO<sub>2</sub> (CO<sub>2</sub>e) no longer in the atmosphere
- 6.1lbs CO<sub>2</sub>e is 7.5 times the amount of carbon emitted in our manufacturing processes