

## Material Guidelines

### Acceptable Material:

- **New Material from Lumber or Hardwood Dealer:** This is typically kiln dried and dimensioned hardwood, softwood or sheet goods (plywood, MDF, particleboard, melamine covered particleboard) that has been purchased at a lumber dealer or big box store (Lowe's, Home Depot). Because of the extensive processing, this wood goes through and the many safety checks for metal, and the processing for moisture content, this wood is considered acceptable for use in the shop as is. The most common issue is staples, usually attached to end grain, to denote the product or pricing. A quick visual check will generally take care of this issue. If in doubt use the metal detector.

### Acceptable Material after Inspection by Shop Attendant:

- **Air Dried /Green/Wet Wood:** This includes slabs, and boards that have not been kiln dried. This material must be cleaned of all loose bark and knots and tested to verify that it is below 15% moisture using the meter prior to being used in the machine room.
- **Recycled / Salvaged Wood:** Caution is required prior to bringing used wood into the shop. This includes an inspection by the shop attendant to verify that the wood is structurally sound, does not contain embedded metal, is free of any sort of solid finish (including paint, varnish, and polyurethane), and is clean and free of sand and grit. This typically will include a visual inspection and frequent checks with a metal meter and if necessary, a moisture meter.
  - Since all wood must be free from dirt and debris, this may mean that you need to pressure wash, or wire brush the wood before bringing it to the shop.
  - All paint (solid finishes) must be removed before bringing it to the shop if you are going to machine the wood.
  - No sanding of painted wood is allowed in the shop.

***NOTE: The above are minimal requirements for such material to meet in order to be suitable. Ultimately the Shop Attendant on duty will make the final call and has been instructed to err on the side of member and machine safety if in doubt.***

### Material that is NOT Acceptable:

- **Treated Lumber:** No wood that has been treated with chemicals is allowed. E.g., Creosote, Copper Sulfate, Etc.
- **Pallet Wood:** Material that had been used as part of a shipping pallet. This is prohibited due to the risk of metal, grit and dirt.
- **Plastics and Epoxy:** The use of foam board, resin, epoxy, polycarbonate, plexiglass, acrylic and other plastic sheets are not allowed in the machine room. Note that small

epoxy patches (under 2") that has cured for at least 14 days are allowed in approved wood workpieces.

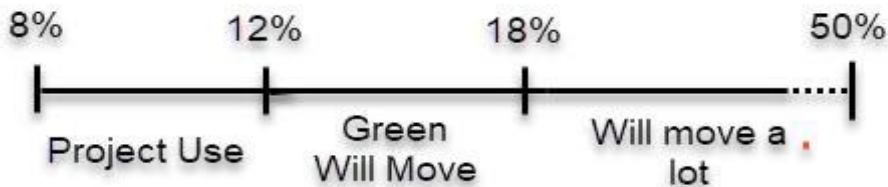
- **Metals:** Metal including steel, brass, and aluminum is not allowed in the machine room.

### Wood Moisture Basics:

Wood is Hygroscopic, which means it will absorb moisture. If the wood is stored outside or in an uncontrolled environment (not heated or moisture controlled), it will absorb moisture. Even if a board has been kiln dried, if it is stored outside in the rain, it will reabsorb moisture. Most construction grade softwoods are minimally kiln dried, and then stored outside open to the elements. If you are using these woods, be sure to check the moisture content. Both for your safety and your project's success. We consider any wood with a moisture content greater than 16% to be green/wet wood and it is not allowed to be used in the machine room.

When a tree is initially cut, the logs have moisture content in the 35% and above range. The optimal range for furniture makers is 8-12%. The lower the better. Some people may want to work with semi-dry wood in the high teen range to take advantage of character achieved as it dries.

The table below explains why moisture content is so important. Since wood will expand and contract with changes in moisture content (wood movement), it is best to use wood in the 8% moisture range for stability in our homes. Cutting Green wood causes two primary problems with equipment. First, there is a rust problem, moisture and steel make rust. Second wood that has not gone through a good drying process and/or has an excess of moisture/pitch, will deposit itself on the blades as the moisture is evaporated due to the heat of the blade going through the wood. This makes for a blade that is quickly dulled and runs hot.



In addition to issues with moisture content, green wood often has another problem. Most green wood easily available today usually comes from urban or rural environments, not old growth forests. Many of these trees were used as fence posts, poster boards, tree houses, and target practice, and often have metal in them in the form of nails, staples, or bullets. These pieces of metal can destroy a saw blade or the knife on a planner or joiner.

### Procedure for using Green/Wet wood in the Guild Shop

Users need to recognize that processing Green or wet wood takes more time than processed wood and take that into account when planning projects.

- All softwoods should be considered wet until checked on the moisture meter.
- All wood must be free from dirt and debris, this may mean that you need to pressure wash, and/or wire brush the wood before bringing it to the shop.
- Check with the Shop Attendant, to ensure that the wood is sufficiently cleaned.

The shop attendant will also assist you in measuring the moisture content of the wood and using the metal detector to check for metal. The Shop Attendant will also discuss with you what processing you want to do with the wood, and what machines you plan to use. Because of the machine impact of green/wet wood, the SA will help you set up and inspect the machine before you start.

### **Procedure for checking for Embedded Metal**

Depending on the type of processing you are doing you may need to check for metal several times during the process.

If you do not know how to do these things check with the Shop attendant before starting.

The Shop Attendant will inspect the machine afterward to ensure that it is cleaned properly, and no damage has been done before proceeding to another machine.

You use these machines at your own risk. If you set off a cartridge on the saw stop due to moisture or metal touching the blade you will be charged for the Cartridge and the cost to repair or replace the Blade. If you hit metal with any of the machines it will be a \$150 charge for machine repair.