

SPECIFICATIONS FOR LEAD CORE WOOD DOORS

GENERAL

Patson Lead, Inc. manufactures lead core wood doors in our facility located in Independence, Kentucky. Doors are constructed using a solid laminated strand lumber core. Standard door thickness is 1-3/4 inches. Available as non-rated, interior use only. Lead cores range in thickness from 1/32 to 1/8 inches. Stile edge strips match the face veneer. Doors are pre-fit for standard frame clearances, with edges beveled 1/8 inch in 2 inches. Doors may also be ordered machined for all types of hinges, locksets and other door hardware. When required we can provide cutouts for lite kits. Hardware, lite kits and x-ray protection glass are not included with the door but are available as an add-on.

WOOD CORE

The wood core of the door is constructed using a solid laminated strand lumber (LSL) body to which top and bottom rails and side stiles are attached using both adhesive and mechanical fasteners. The side stiles are edged with hardwood that matches the face veneer of the door. Top and bottom rail width is a minimum of 2 inches. Stile width is a minimum of 1-1/4 inches. The LSL core is engineered to provide strength and minimize warp, twisting and shrinkage in the door body. Special care is taken during assembly to eliminate defects that would later cause show-through on the surface of the door.

The LSL core is manufactured to Window and Door Manufacturer's Association (WDMA) standards I.S.1-A and approved by Architectural Woodwork Institute (AWI) Quality Standards (v.7). The LSL core is also certified to the Sustainable Forestry Initiative (SFI) Standard and conforms to ISO 14001-2004 Environmental Management System Standard.

LEAD CORE

The sheet lead core is thoroughly cleaned, then adhered to the wood core using an industrial adhesive, applied edge to edge, for complete bonding. The sheet lead meets or exceeds Federal Specification, QQ-L-201f. Depending upon the required lead thickness, one or two sheets of lead are adhered to the wood core. The lead extends from edge to edge, in one piece, and is free of any defects that would affect its shielding performance.

FACES

The face veneer is bonded to the wood / lead core using an industrial adhesive, applied edge to edge, for complete bonding. Stocked wood veneers include birch, red oak and maple. Other species are available. The wood veneer is 1/8" thick and meets AWI and WDMA grading rules.

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FACES cont.

We can also provide lead core wood doors with high-pressure laminate faces. The stile edges of these doors are covered in matching laminate or may be left with a hardwood edge as required. All HPL meets standards of ANSI/NEMA LD3-2005 and is GREENGUARD Indoor Air Quality Certified®.

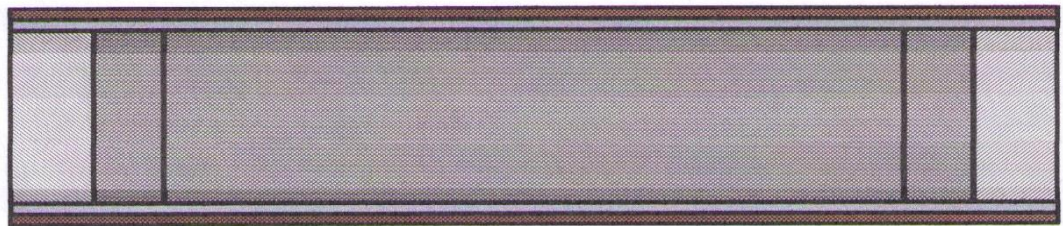
FINISH





All wood veneer faced doors are shop sanded to remove working marks and burr edges. Doors that are to receive an applied finish are further sanded with varying grit sandpaper to achieve the proper surface preparation. Standard doors are supplied with no applied finish. Applied finishes should be specified by manufacturers name and number.

ADHESIVE

The adhesive used in the manufacture of lead core wood doors is a water emulsion thermoplastic (modified acrylic) adhesive. This product is formulated to give good adhesion to both sheet lead and wood material while avoiding the use of flammable or chlorinated solvents. The adhesive is recognized under UL 465 / UL 727 and tested under ASTM E-84. Temperature range is -30⁰ to 300⁰ F and the adhesive has excellent water/ moisture resistant qualities.

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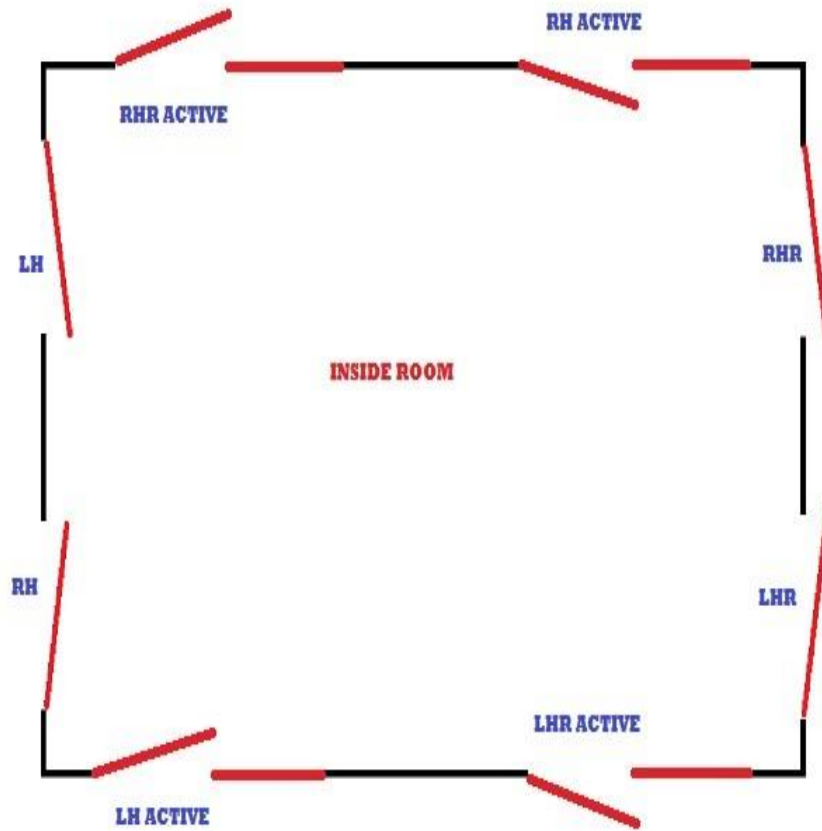
-  HARDWOOD STILE EDGE
-  TIMBERSTRAND WOOD CORE
-  WOOD VENEER
-  SHEET LEAD

NOT TO SCALE

CROSS SECTION

NO BEVEL SHOWN

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USE THIS GUIDE TO DETERMINE THE HAND OR SWING OF YOUR DOOR

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LEAD LINED WOOD ASTRAGAL

Patson Lead can provide a lead lined wood astragal for use on paired doors. All wood astragals are fabricated in our shop. They consist of a central lead core that matches the lead thickness in the doors and a built- up wood core. Faces on the exposed wood core match the veneer faces of the doors.

The overall thickness of the wood astragal is 1/2" plus or minus 1/16". The width is standard at 2" or as needed. The finished astragal is cut to a length that matches the door it is to be installed on.

Specifications for the lead core, face veneer, finish and adhesive as defined in sections of this door specification.

LEAD LINED WOOD ASTRAGAL LAY-UP, TYPICAL

WOOD CORE WITH MATCHING FACE VENEER
WOOD CORE
LEAD CORE
WOOD CORE
WOOD CORE WITH MATCHING FACE VENEER