

Specification — CORECLAD® Lead Lined Wood Doors - to 20 minutes

Non-labeled, 20 minutes NP or 20 Min PP (Cat A or B) per UBC 7-2-1997

A&L Shielding's wood doors are designed to contain various levels of shielding protection and can be equipped with a variety of hardware.

Lead Lined Wood Doors lead under door skins

GENERAL:

CORECLAD® doors are designed to provide an appearance equal to premium grade architectural wood doors while providing radiation protection. They are constructed to support the high weight resulting from lead shielding. The design permits most normal architectural hardware to be used in the final door and frame assembly. These doors provide equal performance and appearance to unlined wood doors.

Doors are to comply with ANSI/WDMA 1.S.1-A requirements. Non-labeled and 20 minute labeled doors have either particleboard or laminated strand lumber (LSL) core construction. Doors will use wood veneer, reconstituted veneer, MDO or decorative laminate faces and hardwood stile edges. Workmanship and tolerances are kept strictly to standards.

CORECLAD® construction is available for lead thicknesses up to 3/8".

PRODUCT DETAILS:

CORE AND EDGES – The standard core of these doors consists of one medium density LD-2 particleboard and edge assembly covered on both sides by lead sheet (equal to one half the total specified lead thickness) meeting Federal Specification QQ-L-201F, Grade C. This lead is 99.9 percent pure. The core includes LSL stiles faced with matching hardwood plus LSL rails.

LEAD LINING – Provide two continuous lead sheets, each equal to a minimum of one half the total specified lead thickness for the opening. Locate lead on either side of the core assembly. Extend lead to all edges of the door.

FIRE LABEL – Fire labels to 20 minute Positive Pressure (Cat. A or B) or Neutral Pressure are available in single doors up to 4'0" x 8'0" and pairs up to 8'0" x 8'0" opening size using this type of core material.

SMOKE LABEL – Positive pressure 20 minute doors also include a smoke ("S") label. Smoke gasketing to be field applied by others.

LITE OPENINGS – Lite sizes are available up to 1,296 square inches per leaf on labeled doors with lead requirements up to 1/8". Total area of cutout cannot exceed 40 percent of door area (30" wide or 54" high maximum). Supply a lead lined metal vision kit and glass for the size and label requirements of the project. For non-labeled doors, lite cutout openings may extend to within 3-1/4" of the edge of the door or cutout for lock hardware for unlabeled doors and 5" for labeled doors. Double glaze with either labeled wire glass or ceramic glazing and lead glass where fire labels are required by local/national fire and safety codes.

For non-labeled doors, a flush or raised wood trim kit in maple or oak with lead lining is available at time of manufacture if a matching wood finish is desired.

FINISH – Doors are shipped unfinished for final finishing at jobsite. Factory edge sealing is available as an option if this does not affect final door finish.

WARRANTY – A standard warranty for one year from date of shipment is standard for lead lined doors. A limited life of original installation warranty is available as well and must be specified at time of order.

EXECUTION:

Installation should conform with the latest issue of DHI's "Installation Guide for Doors and Hardware." Doors having a 20 minute label also should conform to NFPA 80, published by the National Fire Protection Association.

Special emphasis should be placed on the selection of a proper hinge system and the attachment of the door frame to the wall because of the high weights involved with lead lined doors.



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Technical Data — CORECLAD® Lead Lined Wood Doors - to 20 min.

Non labeled up to 20 minutes NP or 20 minutes PP (Cat A or B) per UBC 7-2-1997

Product features, specifications and details (interior only)

Thickness	1-3/4" to 2-1/4" (44.45mm to 57mm). SEE NOTE 1	<p>These radiation shielding doors are recommended for architectural use in hospitals, medical clinics, laboratories and anywhere the possibility of radiation exposure exists. The amount of lead required in these doors must be determined by a licensed radiation shielding physicist.</p>
Maximum Size	4'0" x 8'0". Sizes greater than 4'0" x 8'0" subject to mill acceptance. Pairs are available up to 8'0" x 8'0".	
Faces	2-ply or 3-ply door skin, at mill option. Wood veneer, reconstituted veneer, MDO or decorative laminates available. SEE NOTE 2	
Stiles	Laminated Strand Lumber with matching hardwood, 1-9/16" nominal.	
Rails	Laminated Strand Lumber or mill option hardwood, 1-1/8" minimum at top, 2-1/2" bottom, nominal.	
Adhesive	Type 2 standard, Type 1 (waterproof) optional.	
Core	Solid core construction with LD-2 medium density particleboard and lead on either side of core.	
Lead Thickness	1/32" to 3/8" (0.79mm to 9.53mm). Lead thickness must be specified per shielding study recommendations.	
Special Heavy Lead	For lead greater than 3/8" and less than or equal to 1/2" in non-labeled doors, center lead construction is used.	
Door Lites	Lites are available on doors with lead to 1/8" maximum on labeled doors. Total area of the cutout cannot exceed 40 percent of door area (30" wide or 54" high maximum). 1,296 sq. in. maximum clear lite. Double glazing (lead glass/labeled wire glass) is required for all labeled doors. SEE NOTE 3	
Machining	Factory fitting and machining available. SEE NOTES 4 and 5	
Finishes	Unfinished. Factory edge sealing available.	
Warranty	One year from date of shipment is standard. Other terms up to limited original life of installation are available from the factory and must be specified at time of order.	
Fire Rating	ITS-Warnock Hersey 20-minute fire label for single doors to 4'0" x 8'0" and pairs to 8'0" x 8'0". Neutral pressure and Cat. A or B Positive Pressure also available. SEE NOTE 6	

NOTES:

1. Door thickness for lead above 1/8" varies as lead thickness varies. Consult factory for door thickness and any special frame requirements when this occurs.
2. Decorative Laminate will add to door thickness at some ratings. Contact factory for exact dimensions if decorative laminate is used.
3. Minimum distance from any opening to any hardware cut is 5" for 20 minute and 3-1/4" for non-labeled doors. Consult local code authorities at the installation location for safety and label requirements concerning light openings.
4. Door weights are high due to lead content. Select hardware accordingly.
5. For both Category A (door installed) and Category B (frame installed) systems.
6. For paired openings, a lead lined astragal must be used to prevent radiation leaks at the meeting stiles.



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