

Specification — CORECLAD® Lead Lined Wood Doors: 45 & 60 minute* Positive Pressure per UBC 7-2-1997 with Concealed Intumescent

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 - 45 & 60 minute fire rated

GENERAL:

CORECLAD® doors are designed to provide an appearance equal to premium grade architectural wood doors while providing radiation protection. They are constructed to meet fire resistance requirements of up to 60 minutes in either Positive or Neutral Pressure environments.

The doors support the high weight resulting from lead shielding installed under each door skin. The design allows most fire rated architectural hardware to be used in the final door and frame assembly.

Doors are to comply with ANSI/WDMA 1.S.1-A requirements. They have mineral core construction. Doors will use wood veneer, reconstituted veneer, MDO or decorative laminate faces. Workmanship and tolerances are kept strictly to standards.

CORECLAD® fire labeled construction is available for lead thicknesses up to 1/4".

PRODUCT DETAILS:

CORE AND EDGES – The core of these doors consists of a mineral core and edge assembly covered on both sides by lead sheet covered on both sides by lead sheet (equal to one half the total specified lead thickness) meeting Federal Specification QQ-L-201F, Grade C. The lead is 99.9 percent pure. The core includes tectonite stiles faced with intumescent and covered with matching hardwood edges or edge banding. Blocking is available with standard 5" top and bottom rails and standard 10" full width lock blocking.

LEAD LINING – Provide two continuous lead sheets, each to equal 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 and adhesive bond the entire assembly.

FIRE LABEL – Provide necessary construction features to achieve specified fire resistance plus label certification from Intertek Testing Service (ITS-WH). Fire labels for either 45 or 60 minute ratings are

available in this design. Labels apply to single doors to 4'0" x 8'0" and pairs to 8'0" x 8'0".

SMOKE LABEL – An "S" smoke label is available, provided a listed and approved gasket set is applied to the frame.

LITE OPENINGS – Lite sizes are available up to 100 square inches clear per leaf for doors with 1/8" lead maximum. Lites must be double glazed with either labeled wire glass or ceramic glazing and lead glass. Supply a listed lead lined metal vision kit and the proper glazing materials for the size and label requirements of the project. Lite cutout openings may extend to within 5-1/2 inches of the edge of the door or cutout for lock hardware. Lite kits for these doors must be supplied by A&L Shielding.

FINISH – Wood veneered doors are shipped unfinished. Factory edge sealing is available as an option.

WARRANTY – A standard warranty for one year from date of shipment is standard. Other terms up to a limited life of original installation are available. Specify at time of order.

EXECUTION:

Installation should conform with the latest issues of DHI's "Installation Guide for Doors and Hardware" and NFPA 80, published by the National Fire Protection Association. Special emphasis should be placed on the selection of a proper hinge system and attachment of the door frame to the wall because of the high weights involved with lead lined doors.

U.S. Patent No. 7,598,460



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Technical Data — CORECLAD® Lead Lined Wood Doors - 45 & 60 min.*

Positive Pressure per UBC 7-2-1997 with concealed intumescent (SEE NOTE 1)

Product features, specifications and details (interior only)

Thickness	1-3/4" to 2" (44.45mm to 51mm). SEE NOTE 2	<p>These special fire-rated 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	ITS-WH 45 or 60 minute: Single: 4'0" x 8'0"; pairs: 8'0" x 8'0". SEE NOTE 3	
Faces	2-ply or 3-ply door skin, at mill option. Wood veneer, reconstituted veneer, MDO or decorative laminates available. SEE NOTE 2	
Crossbands	Engineered fiber or wood.	
Stiles	Tectonite with concealed intumescent, 5-1/2" nominal, with matching hardwood or mill option edge band.	
Rails	Tectonite positive pressure design, 5" nominal.	
Blocking	10" lock block @ 41" from bottom of door.	
Adhesive	Type 2 standard, Type 1 (waterproof) optional.	
Core	Asbestos free incombustible mineral. Lead bonded to either side of core in CoreClad® construction.	
Lead Thickness	1/32" to 1/4" (0.79mm to 6.35mm). Lead thickness must be specified per shielding study recommendations.	
Lite	Double glazing required.	
Maximum Size of Lite Opening	Maximum area is 100 sq. in. of visible glass. Both labeled wire or ceramic glazing and lead glass required. Special ITS tested lead lined 115-L1 double glazed vision frame required and to be supplied by A&L Shielding. SEE NOTE 5	
Machining	Must be machined by A&L Shielding or other ITS approved A&L fire door machiner.	
Finishes	Unfinished. Factory edge sealing available.	
Warranty	One year from date of shipment. Other terms up to limited original life of installation are available from the factory and must be specified at time of order.	
Hardware	Door weights are high due to lead content. Select hardware accordingly. Listed pivot hinges with a special hardware prep have been tested at ITS to permit this fire rating.	

NOTES:

1. Frame mounted listed and approved gasket required for these doors to make positive pressure S (smoke) label valid.
2. Wood veneer door thickness for lead above 1/8" varies as lead thickness varies. Plastic laminate faced doors are slightly thicker. Consult factory for actual door thickness and any special frame requirements.
3. For paired openings a listed lead lined metal edge and astragal set must be used to prevent radiation leaks at the meeting stiles.
4. Use of A&L Shielding wood doors in exterior applications is not recommended and not warranted.
5. Minimum distance from the edge of any opening to the edge of any hardware cutout for labeled doors is 5-1/2". Consult local code authorities for safety and fire label requirements that may apply at the installation location concerning light openings.

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