

Installation — Lead Glass

Lead glass in radiation shielding applications requires extra care since it is not tempered and may be scratched more easily than conventional plate glass.

Lead Glass - procedures to follow

Lead glass, cushioned by resilient materials, must be free to “float in the opening” (i.e., it should have adequate clearance around all edges and laterally) so it does not directly touch the framing system. Typical clearances for 5/16” (8mm) thick lead glass are 1/8” from each side and 1/8” clearance top and bottom.

Glazing compound should be 1/8” thick on each face of glass. Always use glazing blocks at the bottom of the frame to support the glass. Caution must be taken when setting glazing beads. DO NOT put excessive pressure on glass by setting glazing beads too tightly. Consult the Glazing Association of North America (GANA) for clearances for other glass thicknesses. A&L Shielding Inc. recommends a “wet” type glazing system as defined by GANA*.

Inspect the frame for proper installation in the wall with no twist or distortion, for smooth and flush joints and for proper smoothness, squareness and sizing of the glazing pocket.

Position the movable stops in the glass pocket and trim the length of each to fit as a system. Trim the top and bottom stops to fit snugly from side to side and then trim the side stops to fit from the top to bottom stop. Where the stops are not pre-drilled, drill each **movable** stop with full sized screw holes, about 2” (50mm) in from each end. Drill one or more additional holes evenly spaced, for stops over 24” (610mm).

Insert spacers equal in thickness to glass thickness + 2X sealant thickness, holding the spacer against the **fixed** stop in the window glass pocket. Use the locations of the screw holes in the movable stops to mark the fixed part of the frame.

Remove the spacer and the movable stops and drill a pilot hole in the fixed frame at each mark. Insert and then remove the stop mounting screws to prepare the holes that hold the stops in place. Finally, paint the frame to the architect’s specifications.

Carefully unbox and clean the glass, using only a soft cloth and non abrasive glass cleaner. Verify that the glass fits into the glass pocket of the frame without binding. Adjust the glass size as needed to eliminate any binding by sanding or grinding the glass edges very carefully. **DO NOT ATTEMPT TO CUT.**

Obtain compatible glazing sealant or glazing tape, setting blocks and edge blocking material from a local source. If the frame is fire labeled, check with the manufacturer for special glazing requirements.

Glass should be set on two identical neoprene, EPDM, silicone or other compatible elastomeric setting blocks having a Shore A Durometer hardness of 85 +/-5. The width of the setting block should be at least 1/8” (3mm) wider than the glass thickness. Install 1/8” of the glass width from each corner. Set blocks in a thin course of sealant suitable for heel bead use. Use spacers inside and out where local practice and job requirements dictate. Provide edge blocking where local practice requires.

Run a small bead of pre-formed glazing tape or gunable elastomeric glazing sealant around the fixed stop of the window frame. Press the lead glass into position, apply sealant to the other side of the glass and press the top and bottom movable stops into place until the pre-drilled holes line up.

Screw the top and bottom movable stops in place, taking care to not let the screwdriver blade or handle contact the glass, as this will cause scratches. Follow with the two side stops.

Clean the frame and glass using a soft cloth and non abrasive glass cleaner. Protect the glass from breakage immediately following installation. Do not attach markers to the surfaces of the glass.

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