

# Specification — Lead Glass - PET Applications

Lead glass is available in a variety of radiation shielding levels and serves as a viewing medium where clear visibility of the treatment area is required.

## Pro-GR Lead Glass

### GENERAL:

Glass is used to allow viewing the patient area while high energy radiation from PET is present. The material will be placed in a lead lined frame to hold it in place in the wall.

### PRODUCT DETAILS:

Pro-GR glass has been developed for shielding against gamma rays in PET treatment to protect against 0.511 MeV energy as opposed to the peak voltage of 150kv to 200kv found in standard X-Ray shielding glass (LX-57B) normally used in X-Ray protection.

Pro-GR is made of glass materials having a lead oxide content rate of roughly 70 percent that is equivalent to ultra-high lead content block glass for nuclear power facilities. Multiple layers of Pro-GR can be used together to achieve a greater level of protection if required.

### EXECUTION:

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.

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. Use spacers inside and out where local practice and job requirements dictate.

Provide edge blocking where local practice requires. Use compatible sealant or glazing tape.

Clean only with a soft, non-abrasive cloth.

**IMPORTANT** - Check glass for damage immediately upon arrival at site.

**NOTE:** For fire-labeled or safety-glazed openings, special considerations apply. Interpretation of building and fire codes varies depending on locale.

Consult with local authorities on the proper fire-rated or safety glazing procedures. Labeled wire glass or ceramic glazing such as Firelite™ must be used in the view window in conjunction with lead glass for labeled openings.

\*\* "Seeds" or minute air bubbles exist inside Pro-GR because it is made of special glass materials. This does not affect its radiation shielding properties.

### PROPERTIES

|                            |        |        |
|----------------------------|--------|--------|
| Thickness (mm) (Approx.)   | 14.2mm | 21.3mm |
| Thickness (in.) (Approx.)  | 9/16"  | 27/32" |
| Max. Lead Equivalent (mm)  | 5.0    | 7.5    |
| Max. Lead Equivalent (in.) | 3/16"  | 9/32"  |
| Densities (gm/cm)          | 5.2    | 5.2    |
| Weight (lbs/sq.ft)         | 16     | 25     |
| X-Ray Peak Voltage (kv)    | 511    | 511    |
| Refractive Index (Typ.)    | 1.81   | 1.81   |
| Transmission (500 - 600nm) | 83%    | 83%    |

### SIZE AND TOLERANCE:

Minimum size \_\_\_\_\_ any size on request  
Maximum size \_\_\_\_\_ 60" x 42" (1500mm x 1000mm)



268 Old Lindale Road  
Rome, Georgia 30161

Phone Toll Free: 800-329-5323  
Fax Toll Free: 800-329-5320  
e-mail: [alshield@alshielding.com](mailto:alshield@alshielding.com)  
Internet: [www.alshielding.com](http://www.alshielding.com)