



LEAD-LINED HINGED
& SLIDING DOORS



SPECIALIZED DOORS YOU CAN TRUST

Alpha Door Solutions is the leading name in the manufacture, supply of security, fire and lead-lined doors. Its range of products include: hinged and sliding fire doors, lead-lined doors, security doors, transformer room doors, mild and stainless steel doors as well as frames.

Alpha Door Solutions is based in Rustivia, Germiston and supply doors through out Africa. With the expertise of its technical and sales team, Alpha provides extensive advice at early design stage on details, feasibility and technical specifications.

LEAD-LINED HINGED & SLIDING DOORS

Technical Data Sheet No. BP 4.4 SF02C R00

Alpha Lead-Lined Hinged and Sliding Doors are designed and manufactured to afford personnel protection from X-rays in environments where X-ray equipment is in use by reducing the level of exposure to an international accepted level. The doors have a laminated constructed core with a centrally located lead sheet lining of a thickness compatible with the degree of exposure from the equipment being used.

DOOR FINISHES

The doors can be clad in a variety of finishes such as masonite, timber veneer (exotic veneers subject to availability) and steel sheeting.

FRAMES (Hinged Doors)

The frames are manufactured from 1.6mm mild steel or galvanised sheeting if required in a double rebated profile to suit the relevant wall thickness. The internal rebate of the frame is lined with lead of a thickness compatible with the lining in the door.

HINGES

The doors are fitted with heavy duty 4.0mm flanged brass butt hinges with 1 1/2 pair per leaf on standard size doors and 2 pairs on non-standard doors.

SLIDING DOORS

Lead-Lined Sliding Doors are manufactured 100mm larger on the top and on each side than the actual opening.

TRACK

Sliding Doors are supplied with overhead sliding track, trolleys, floor guide rollers and door stops.

IRONMONGERY

Doors can be fitted with ironmongery, but care must be taken that the lead lining of the door is not damaged.

Veneered doors - 1.5 mm lead lining - 50 kg/m²

Steel clad doors - 1.5 mm lead lining - 63kg/m²

INSTALLATION (Hinged Doors)

Doors and frames will be delivered to site as a unit. The doors are provided with a hardwood edging strip, so that a limited amount of dressing is available to compensate for misalignment of the frame. When installed by the contractor the door and frame unit must be installed square true and plumb with the door/s in the closed position. The bottom leading edge/s or the door/s must be wedged to support the vertical load of the door on the frame. The wedge/s should not be removed until the brickwork is satisfactory cured.

INSTALLATION (Sliding Doors)

This is normally carried out by Alpha Door Solutions.

X-RAY SHIELDING DESIGN EQUATION

In order to establish suitable thickness of lead-lining.

$$K = \frac{Pd^2}{WUT}$$

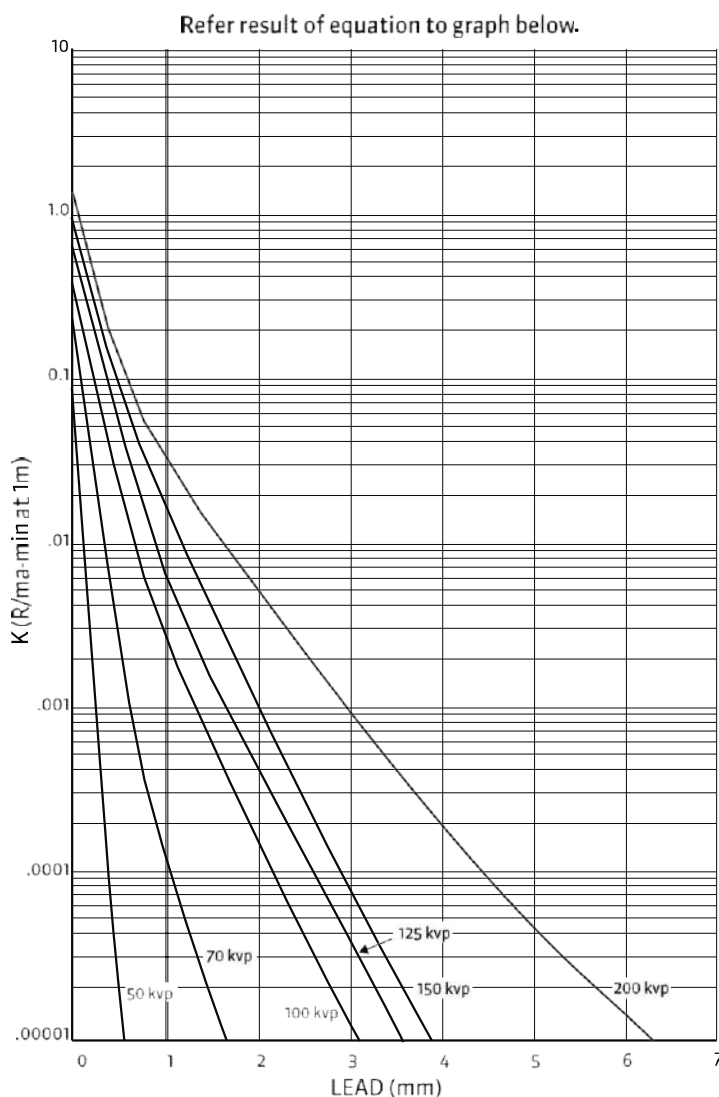
P = 0.1 (Roetgen Factor) Current acceptable level of exposure to radiation workers.

d = Distance from exposure in metres.

W = Workload in milliamps/minute per week
(This should insofar as possible, be averaged over a period of several months).

U = Use factor. 0 to 1 (ie.50%=0.5 100%=1).

T = Occupancy Factor (1 = 100%).



Whilst every precaution is taken in the preparation of this pamphlet, which describes our standard product at the time of going to press. It is not to be considered as binding in details unless confirmed by us. We reserve the right to make any alterations without notice.



Lead-Lined Hinged & Sliding Doors



Security Doors



Transformer Room Doors



Hinged Fire Doors



Sliding & Bi Parting Fire Doors