

CORNING

## Corning Med-X® Comprehensive Radiation Protection



Corning is a world leader in Radiation Shielding Glass offering one of the largest glass sizes available; allowing architects to design viewing windows with a wider field of vision. Corning Med-X® is supplied as polished plates with dimensions upto 54" x 108" and is available worldwide through Corning sales offices and a network of specialist distributors who carry stock for quick delivery.

### Benefits

- Shields against X-Rays from equipment in the 100 to 300kV range.
- High barium and lead content providing optimum protection and a neutral appearance
- Suitable for laminating using PVB interlayers to meet CPSC 16 CFR 1201 Cat. II safety glazing standard.
- Stocked in many sizes and lead equivalencies to meet demands on any Healthcare Project.
- Corning Med-X® products are certified and tested to meet requirements for diagnostic imaging applications.

### Applications

- Viewing windows for X-Ray, Angiography Rooms, CT and Pet Scans.
- Screens for medical diagnostics
- Protection windows in laboratories
- Airport security X-Ray screens
- Lenses for safety goggles



## Shielding Characteristics

Thickness		Minimum lead equivalence (mm) for stated X-Ray tube voltage						Max. Plate Mass	
mm	inches	100kV	110kV	150kV	200kV	250kV	300kV	kg/m <sup>2</sup>	lbs/ft <sup>2</sup>
3.5-5.0	0.138-0.197	1.3	1.2	1.1	1.0	1.0	1.0	24.0	4.9
5.7-7.0	0.224-0.276	1.7	1.7	1.6	1.4	1.3	1.3	33.6	6.9
7.0-8.5	0.276-0.335	2.3	2.3	2.0	1.8	1.7	1.8	40.8	8.4
8.5-10.0	0.335-0.394	2.8	2.8	2.6	2.1	2.1	2.1	48	9.8
10.0-12.0	0.394-0.472	3.3	3.3	2.9	2.5	2.6	2.6	57.6	11.8
11.0-13.0	0.433-0.512	3.5	3.6	3.2	2.7	2.7	2.8	62.4	12.8
14.0-16.0	0.551-0.630	4.4	4.7	4.2	3.5	3.6	4.0	76.8	15.7
16.0-18.0	0.630-0.709	N/A	N/A	4.8	4.0	4.1	4.3	86.4	17.7
18.0-20.0	0.709-0.787	N/A	N/A	5.4	4.4	4.5	4.7	96.0	19.7

Data provided by the UK Health Protection Agency: N/A = X-Ray transmission below level of detection

## Physical Properties

Optical Properties		Mechanical Properties	
Refractive Index nd	1.76	Density (g/cm <sup>3</sup> )	4.8
Transmission % @ 550nm through 5mm path	≥85.0	Knoop Hardness (kg/mm <sup>2</sup> )	440
		Young's Modulus (GPa)	62.7
<b>Chemical Properties</b>		Poisson's Ration	0.23
Lead (Pb)	48%	Coefficient of Thermal Expansion (x10 <sup>-7</sup> °C)	81.8
Barium (Ba)	15%		

The production of Corning Med-X® is strictly controlled and Corning follows both the environmental standard ISO14001 and the quality standard ISO9001:2000.

\*Note: The high barium and lead content makes Corning Med-X susceptible to staining by acids and alkalis. We recommend this glass is not used or stored in conditions that will result in exposure to acid gases or excessive humidity.

This publication gives a general description of the product and materials. It is the responsibility of the users of this document to ensure that the proposed application of the product is appropriate and that such application complies with all relevant local and national legislation, standards, code of practice, and other requirements.

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