

# Corning® Med-X® Glass

Radiation Shielding Glass for medical, technical and research applications.

Corning is a world leader in Radiation Shielding Glass offering some of the largest glass sizes available. **Corning® Med-X®** Glass is supplied as polished plates with dimensions up to 2800 x 1400 mm and is available worldwide with quick delivery times.



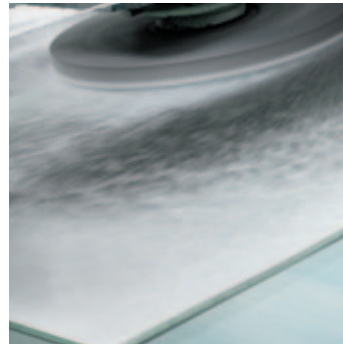
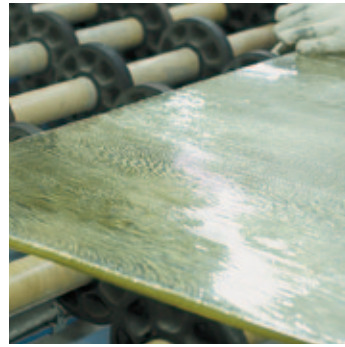
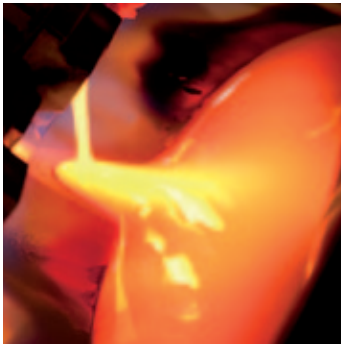
## Key benefits

- Shields against X-Rays from equipment operating in the 80 to 300 kV range.
- High Barium and lead content providing optimum protection with excellent visual clarity.
- Supplied as polished plates cut to customer requirements up to 2800 x 1400 mm, allowing architects to design viewing windows with a wider field of vision.
- Also available in sizes cut specifically to customer requirements (with cut edges ground or polished and finished with safety chamfers).
- Extensive stocks held in all plate sizes and thicknesses at distribution points worldwide, for immediate cutting and despatch.

## Applications

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

CORNING



## Shielding Characteristics

| Glass Thickness |               | Minimum lead equivalence (mm) for stated X-Ray tube voltage |       |       |       |       |       |       | Max. Plate Mass   |                     |
|-----------------|---------------|---|-------|-------|-------|-------|-------|-------|-------------------|---------------------|
| mm              | inches        | 80kV  | 100kV | 110kV | 150kV | 200kV | 250kV | 300kV | kg/m <sup>2</sup> | lbs/ft <sup>2</sup> |
| 4.0-5.5         | 0.157 - 0.217 | 1.4   | 1.4   | 1.3   | 1.2   | 1.0   | 1.0   | 1.0   | 26.4              | 5.4                 |
| 5.0-6.5         | 0.197 - 0.256 | 1.7   | 1.7   | 1.7   | 1.5   | 1.3   | 1.3   | 1.3   | 31.2              | 6.4                 |
| 5.7-7.0         | 0.224 - 0.276 | 1.9   | 1.9   | 1.9   | 1.7   | 1.5   | 1.5   | 1.5   | 33.6              | 6.9                 |
| 7.0-8.5         | 0.276 - 0.335 | 2.3   | 2.3   | 2.3   | 2.1   | 1.8   | 1.8   | 1.8   | 40.8              | 8.4                 |
| 8.5-10.0        | 0.335 - 0.394 | 2.7   | 2.8   | 2.9   | 2.6   | 2.1   | 2.1   | 2.2   | 48.0              | 9.8                 |
| 10.0-12.0       | 0.394 - 0.472 | 3.2   | 3.2   | 3.3   | 2.9   | 2.5   | 2.6   | 2.6   | 57.6              | 11.8                |
| 11.0-13.0       | 0.433 - 0.512 | 3.6   | 3.5   | 3.6   | 3.2   | 2.8   | 2.8   | 2.9   | 62.4              | 12.8                |
| 12.0-14.0       | 0.472 - 0.551 | 4.0   | 3.8   | 4.0   | 3.5   | 3.0   | 3.1   | 3.2   | 67.2              | 13.8                |
| 14.0-16.0       | 0.551 - 0.630 | 4.7   | 4.5   | 4.6   | 4.1   | 3.5   | 3.6   | 3.7   | 76.8              | 15.7                |
| 16.0-18.0       | 0.630 - 0.709 | 5.3   | 5.1   | 5.3   | 4.7   | 4.0   | 4.1   | 4.3   | 86.4              | 17.7                |
| 18.0-20.0       | 0.709 - 0.787 | 6.0   | 5.7   | 5.9   | 5.2   | 4.4   | 4.6   | 4.8   | 96.0              | 19.7                |

Data provided by the Public Health England (PHE).

Attenuation measured using the narrow beam method, in accordance with IEC 61331:2014.

## Physical Properties

### Optical Properties

|   |       |
|---|-------|
| Refractive Index nd                     | 1.76  |
| Transmission % @ 550nm through 5mm path | ≥85.0 |

### Chemical Properties

|             |     |
|-------------|-----|
| Lead (Pb)   | 52% |
| Barium (Ba) | 17% |

### Mechanical Properties

|  |      |
|--|------|
| Density (g/cm <sup>3</sup> )                             | 4.8  |
| Knoop Hardness (kg/mm <sup>2</sup> )                     | 409  |
| Young's Modulus (GPa)                                    | 62.6 |
| Torsion Modulus (GPa)                                    | 24.8 |
| Poisson's Ratio  | 0.26 |
| Coefficient of Thermal Expansion (x10 <sup>-7</sup> /°C) | 78.8 |

Suitable for laminating using PVB interlayers, and can be fitted into sealed double-glazed units.



The production of Corning S.A.S. is strictly controlled and manufactured in accordance with the Quality Standard ISO 9001, the Environmental Standard ISO 14001 and the Health & Safety Standard OHSAS 18001.

For more information contact:  
[radiationglass@corning.com](mailto:radiationglass@corning.com)

To contact the nearest Corning sales office:  
[www.corning.com/med-x](http://www.corning.com/med-x)

This publication gives a general description of the product and materials. It is the responsibility of the users 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. To the extent allowed by law, Corning and its affiliates hereby disclaim all liability arising from any error or omission from this publication and all the consequences of relying on it. The information contained herein is based upon data considered to be accurate. However, no warranty is expressed or implied regarding the performance of this product. The only applicable warranties are those that are set out in a contract or in Corning's general sales conditions.

Corning SAS - 7, bis avenue de Valvins, CS 70156 Samois-sur-Seine, 77215 AVON Cedex, France  
 Tel +33 1 64 69 71 11

[www.corning.com/med-x](http://www.corning.com/med-x)

Corning® and Med X® are trademarks of Corning Incorporated, Corning, NY

© 2017 Corning Incorporated. All rights reserved

CORNING