



# Corning Glass Solutions for Medical Imaging Applications

High-quality and protective shielding solutions for use in radiation protection and general medical imaging applications. Specific products include radiation protective glass and lead-lined walls, doors and window products.

your single source supplier



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Australia's largest and most trusted single source supplier of medical imaging products and accessories.

### The Imaging Solutions experience

When people or organisations come into contact with Imaging Solutions, customers, suppliers and employees alike enjoy a consistent and positive experience that promotes a positive outlook, successful outcome and loyalty over the long-term.

### Gain access to the world market leaders while enjoying local support

Imaging Solutions has partnered with over 50 world leading brands to bring you the most comprehensive platform of medical imaging products in Australia. All our supplier partners are selected on the criteria of being the best-in-class of their area of expertise. Meaning, with Imaging Solutions, you have access to the very best the world market has to offer and the peace of mind knowing that a locally run organisation can support you if something goes wrong.



**PHILIPS BIODEX BEEKLEY**



### Our history

Imaging Solutions boasts a proud history. Established in 1992, the company expanded its core distribution business through the acquisition of a number of bolt-on enterprises such that combined, the organisation has over 45 years of history in supporting the Australian and New Zealand medical imaging industry.

### Support Australian manufacturing

Imaging Solutions manufactures a range of products in Australia where ever we can add value to our customers in doing so. The RadSafe brand of radiation protection aprons and accessories is just one example of a range that is designed and made in Brisbane, Australia at our world class manufacturing facility. Imaging Solutions also manufactures positioning aids, sandbags, portable radiation protection screens or more. We also design and manufacture turnkey MRI/RF cage and scan rooms.



### Australia's widest range of imaging products

It would be difficult to walk through a radiology department and not recognise products from Imaging Solutions in every corner. From positioning aids to diagnostic displays, there is no more complete and comprehensive range of products anywhere in the country. Imaging Solutions is your single source supplier.

your single source supplier

### Expert knowledge

Imaging Solutions has been servicing the medical imaging industry for decades. Coupled with our connections to world leading manufacturers and industry experts, Imaging Solutions is well positioned to provide you best practice knowledge and assist you in delivering exceptional imaging outcomes to your patients and customers.

### Unrivalled customer satisfaction

Our friendly and knowledgeable customer service team is ready and waiting to help you with whatever your need may be. Call us on the phone or send through an e-mail and our team will go out of their way to ensure you receive a helpful and timely response.

For the most up to date information visit us online at  
[www.imgsol.com.au](http://www.imgsol.com.au)





# Healthcare Shielding Systems

Imaging Solutions is a leading designer, manufacturer and installer of radiation and X-ray shielding solutions in Australia.

We are part of Honey Group which specialises in the design and construction of personal radiation protection and static control walls, windows, and door sets. Imaging Solutions are also Australia's leading supplier of engineered products in lead, with a wide product portfolio covering nuclear power, nuclear medicine, X-ray, electronics, transport, defence, construction and many other industries.

As an established and well respected supplier of turn-key radiation shielding solutions to the imaging market. Imaging Solutions are one of the major installers of lead chevrons for radiotherapy bunkers and lead lined board for lower levels of radiation shielding.

We offer a total X-ray shielding solution package that includes shielding for walls, ceilings and floors. Also, lead lined door sets, lead glass observation windows and lead lined protective screens (fixed or mobile) for the following medical procedures and departments:

- |                |                    |
|----------------|--------------------|
| • X-ray        | • Theatres         |
| • Dental X-ray | • OPG              |
| • CT scanner   | • Mammography      |
| • Gamma Camera | • Angiography      |
| • Fluoroscopy  | • Cath Labs        |
| • Endoscopy    | • Nuclear Medicine |

From initial discussions, through to design, manufacture and installation, a dedicated Imaging Solutions Project Manager will work with you to ensure your shielding project is on time, within budget and to your exacting specifications.

An investment in engineering excellence underpins our commitment to providing a comprehensive service to architects, hospital trusts, building contractors and manufacturers of radiotherapy and radiology equipment. With our comprehensive range of X-ray protection products; we will continue to help protect healthcare workers and patients alike.

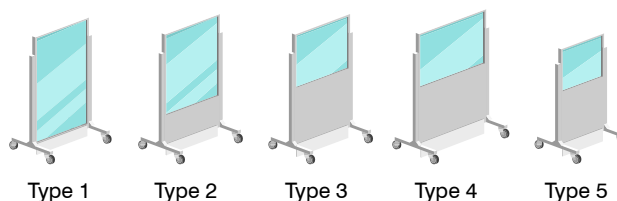
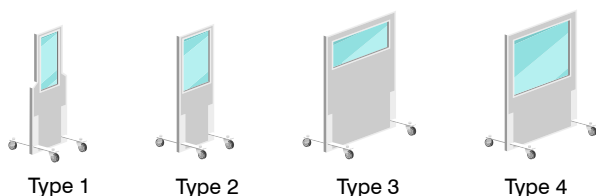
## Why Choose Imaging Solutions?

- We are already an established and respected supplier of radiation shielding solutions to the NHS
- We have a team of highly skilled, dedicated and experienced designers, project managers and installers working to exacting quality standards
- We are ISO 9001:2015, 14001:2015 and OHSAS 18001:2007 certified and Achilles registered
- We have an exceptional reputation for delivering what is required, within budget and on time



# Mobile Shielding Protection

In order to avoid being a disturbance in a room, high expectations are placed on mobile protective shields. All requirements of equipment and procedural methodology of the operation room, as well as all demands of the personnel have to be taken into consideration.



## Apex Mobile Screen

Mobile radiation protective screens with lead glass viewing panel. Available in four different sizing options, suitable for any environment.

Lead equivalence is 2.1 Pb.

Type	Size (WxHxD cm)	Window Size (cm)
Type 1	60 x 199 x 65	33 x 100
Type 2	60 x 199 x 65	40 x 100
Type 3	120 x 199 x 65	100 x 50
Type 4	120 x 199 x 65	100 x 100
Type 5	60 x 199 x 65	n/a
Type 6	120 x 199 x 65	n/a

<a href="#">Apex Mobile Screen - Type 1</a>	RS-SH-A060-W033X100-TP
<a href="#">Apex Mobile Screen - Type 2</a>	RS-SH-A060-W040X100
<a href="#">Apex Mobile Screen - Type 3</a>	RS-SH-A120-W100X050
<a href="#">Apex Mobile Screen - Type 4</a>	RS-SH-A120-W100X100
<a href="#">Apex Mobile Screen - Type 5</a>	RS-SH-A060-W0
<a href="#">Apex Mobile Screen - Type 6</a>	RS-SH-A120-W0

## Zenith Mobile Screen

Powder coated steel frames, precision TIG welded for years of trouble-free service completely enclosing the leaded glass panel for increased durability and safety. Includes extra support around base unlike competing models.

Lead equivalence is 2.1 Pb.

Type	Size (WxHxD cm)	Window Size (cm)
Type 1	110 x 197.5 x 76.8	100 x 180
Type 2	110 x 197.5 x 76.8	100 x 133
Type 3	110 x 197.5 x 76.8	100 x 100
Type 4	130 x 197.5 x 76.8	120 x 100
Type 5	76 x 197.5 x 76.8	66 x 100

<a href="#">Zenith Mobile Screen - Type 1</a>	RS-SH-Z110-W100x180
<a href="#">Zenith Mobile Screen - Type 2</a>	RS-SH-Z110-W100x133
<a href="#">Zenith Mobile Screen - Type 3</a>	RS-SH-Z110-W100x100
<a href="#">Zenith Mobile Screen - Type 4</a>	RS-SH-Z130-W120x100
<a href="#">Zenith Mobile Screen - Type 5</a>	RS-SH-Z076-W066x100

Manufactured with **CORNING** glass.

# Radiation Protective Glass

Corning continues to innovate with the extension of the Radiation Shielding Glass range.

## Med-X® LT Glass

### Thin, Clear, and Robust - Corning Innovation

With Corning® Med-X® LT Glass, Corning innovation continues in the field of Radiation Shielding Glass.

Thanks to an innovative laminated design combining different Corning glasses, new Corning® Med-X® LT Glass enables improved glazing.

The new radiation shielding solution brings improved features:

- Improved safety in case of impact
- Improved clarity, scratch resistance, and ease of cleaning
- Easy handling and framing thanks to a lightweight design

### Combination of Unique Technologies

CORNING® MED-X® GLASS offers reliable radiation shielding performance and clear transparency for safer X-ray operations.

CORNING® ADVANCED GLAZING offers a unique combination of thin, lightweight, and tough properties, enabling a new generation of innovative windows.

### Product Life Cycle

From transportation to installation into window panels inside architectural healthcare facilities and laboratory around the world, radiation shielding glass must withstand several constraints during its life cycle:

- Handling, packing, unpacking, and storage
- Daily maintenance and cleaning
- Repeated ionizing radiation

### Impact Resistance

Building requirements are becoming increasingly strict with regard to safety standards.

### Clarity

Visual comfort and a well-lit work environment are essential for specific glazing materials such as radiation shielding glass.

A new construction project? A new device? Material reliability and ease of use is crucial.

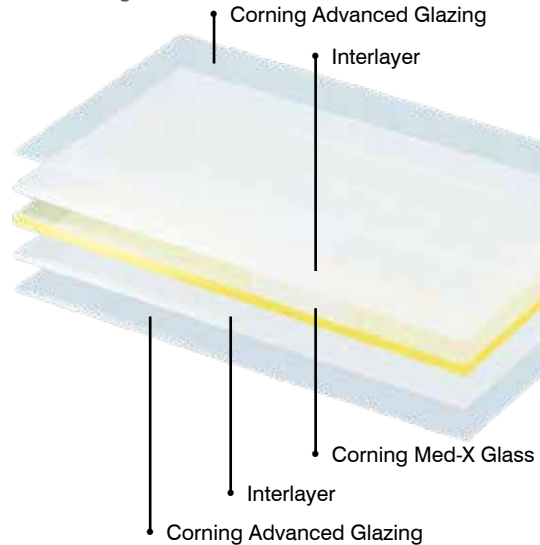
**Corning developed a new glass solution bringing safety, durability and user-friendliness for all stakeholders along the product life cycle.**

Whether you are a distributor looking for the best solution to offer to your customers, a radiation specialist designing and installing the most reliable X-ray room, or an architect working with engineering consultants looking for the best solution available on the market, the new Corning® Med-X® LT Glass will meet your expectations.



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Patent Pending



Corning Advanced Glazing = Thin Glass < 1mm





## Safety

### Protects from ionizing radiation

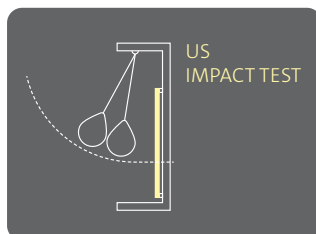
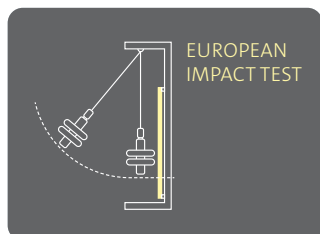
Corning® Med-X® LT Glass offers excellent radiation protection performance: 1.2 mmPb to 2.6 mmPb lead equivalence at 150 kV tested according to international standard IEC 61 331:2014.

Limits the risk of injury in case of impact Corning® Med-X® LT Glass is a laminated glass.

In case of impact, numerous cracks could appear but fragments are being held together: no projection of glass.

Corning® Med-X® LT Glass is qualified with the most stringent Impact Safety standards for glazing:

- EN 12600 (Europe)
- Cat II CFR Part 16 #1201 (United States)



## Safety Glazing Impact Test

Safety glass tests reveal how the glass will behave when subjected to an impact of about 50 kg at different drop heights: from a few centimeters to more than 1.20 m (equivalent to an adult hitting the glass unintentionally or a child landing on it accidentally). All tests are performed by accredited independent laboratories.

## Durability

Radiation shielding glass requires special care. Corning® Med-X® LT Glass is resistant to scratching and daily cleaning.

### Scratch Resistant

Corning® Med-X® LT Glass has better scratch resistance than other products available on the market:

- Up to 4 times better than conventional radiation shielding glass
- 24 times better than lead acrylic panels

It is measured using the ASTM F735-94 abrasion protocol (BAYER test – 3,600 cycles – Corundum sand – Haze measurements).

### Easy to clean

Corning® Med-X® LT Glass is easy to clean with common detergents.

## User-Friendliness

### Improved clarity for users

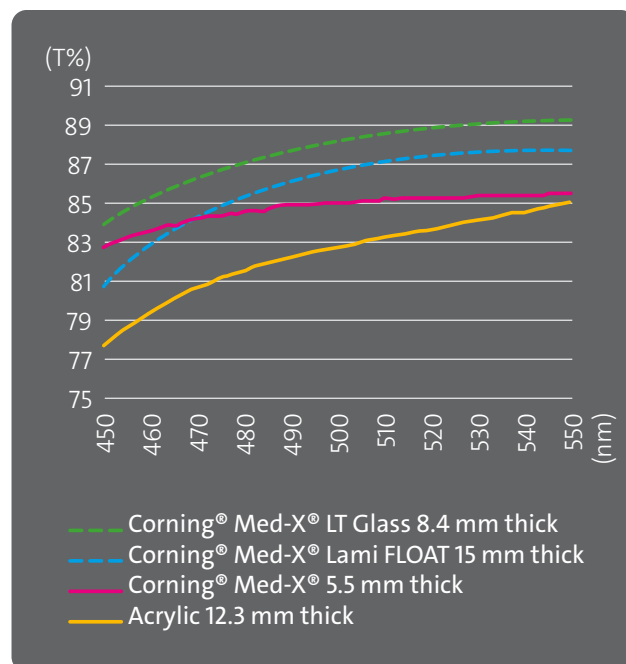
Corning® Med-X® LT Glass guarantees the properties and reliability of a premium radiation shielding glass while offering improved clarity and transparency. Visual clarity is improved as the new solution brings up to 5 extra points of light transmission.

### Added value for installers and integrators

Corning® Med-X® LT Glass provides the added value of a laminated sheet without the constraints of extra weight and thickness. Compared to current solutions on the market, Corning® Med-X® LT Glass is up to 10 kg/m<sup>2</sup> lighter.



## Light Transmission Comparison\*



\* Light transmission % for different materials Shielding @150 kV for 1.2 mm Pb for glass vs 0.5 mm Pb for acrylic



## Technical Information

### Corning® Med-X® LT Glass characteristics:

Optical Properties	
Transmission % @550 nm	> 89%
Y D(65%): Optical transmission for visible spectrum at daylight – D65 illuminant	> 89%
Mechanical Properties	
Density of lead glass (g/cm³)	4.8
Knoop Hardness (kg/mm²)	489
Chemical Properties	
Lead content (Pb)	52%
Barium content (Ba)	17%
Testing*	
Radiation Shielding	IEC 61 331: 2014 international standards, data provided by the Public Health of England (PHE)
Safety Impact Glazing	EN 12600, 1B1 class** Cat. 2 - CPSC 16 CFR 1201***
Abrasion	ASTM F735-94 (3,600 cycles, Corundum sand)

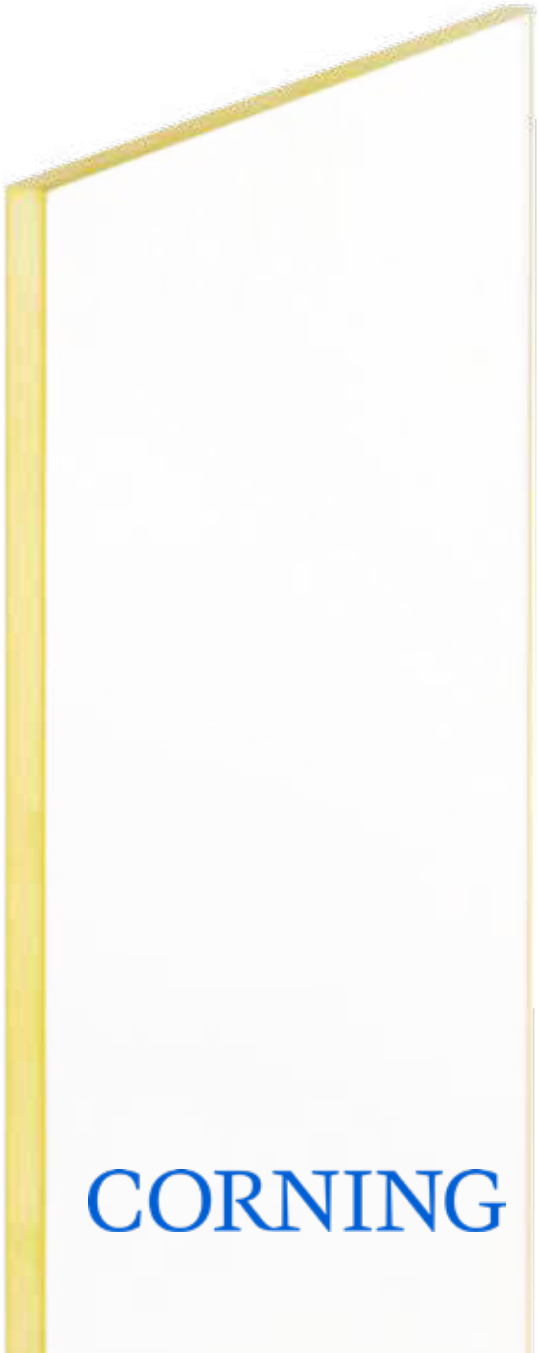
\*More information available on request

\*\*Test performed for the LE 2.1 mmPb item

\*\*\* Test performed for the LE 1.7 mmPb item

### Thickness and weight

Thickness of lead glass	4.0-5.5 mm	5.0-6.5 mm	5.7-7.0 mm	7.0-8.5 mm	8.5-10.0 mm
SHIELDING performance @150 KV	1.2 mmPb	1.5 mmPb	1.7 mmPb	2.1 mmPb	2.6 mmPb
Thickness	6.9to 8.9 mm	7.9to 9.9 mm	8.6to 10.4 mm	9.9to 11.9 mm	11.4to 13.4 mm
Weight ratio	24 to 33 kg/m²	29 to 38 kg/m²	32 to 41 kg/m²	38 to 48 kg/m²	45 to 55 kg/m²



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## Radiation Shielding Glass Applications

### Why use radiation shielding glass?

Wherever X-ray and gamma ray technologies are used, radiation shielding glass can protect people from ionizing radiation (interventional cardiology, CT scans, radiation therapy, etc.).

### Medical, technical, and industrial applications:

- Fixed windows in hospitals or smaller practices
- Suspended or mobile panels in hospitals or smaller practices
- Research laboratories
- Industrial scanners and non-destructive testing

## Radiation Shielding Glass Product Range

### Corning® Med-X® Glass and Corning® Med-Gamma® Glass

Corning is one of the worldwide leaders in radiation shielding glass, with years of experience providing high-quality glass with a comprehensive range of thickness and sizes.

### Corning® Med-X® Glass for X-Ray shielding:

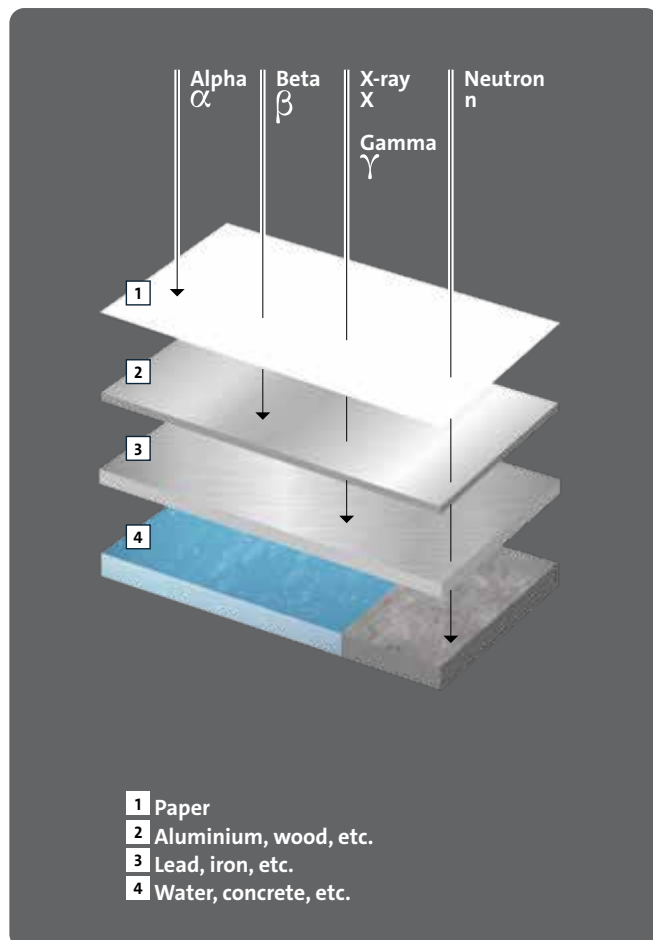
- Observation windows & panoramic glazing door glazing
- panel (fixed and mobile)
- Glove boxes for X-Ray rooms
- CT scanning facilities

### Corning® Med-Gamma® Glass for Gamma-Ray shielding:

- Windows for nuclear medicine applications including hot cell, cyclotron, and PET scanning

Corning® Med-X® Glass and Corning® Med-Gamma® Glass are supplied as polished plates in the largest available sizes on the market (up to 2,800 x 1,400 mm) and as finished, cut-to-size plates. Customized shapes and finishing are available upon request for the widest range of possibilities.

## Types of Radiation and Penetration





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**Oceania**

PO Box 3225 Loganholme, QLD 4129, Australia  
1300 132 100  
[www.imgsol.com.au](http://www.imgsol.com.au)

**Americas**

25 Hytec Cir, Rochester, NY 14606, USA  
866 586 0915  
[www.imgsol.us](http://www.imgsol.us)

**EMEA**

37 Baggot Street Lower, Dublin 2, D02 NV30, Ireland  
+617 3387 0400  
[www.imgsol.eu](http://www.imgsol.eu)

**Asia**

PO Box 3225 Loganholme, QLD 4129, Australia  
+617 3387 0400  
[www.imgsol.asia](http://www.imgsol.asia)

[www.imgsol.com](http://www.imgsol.com) [info@imgsol.com](mailto:info@imgsol.com)

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