CORNING

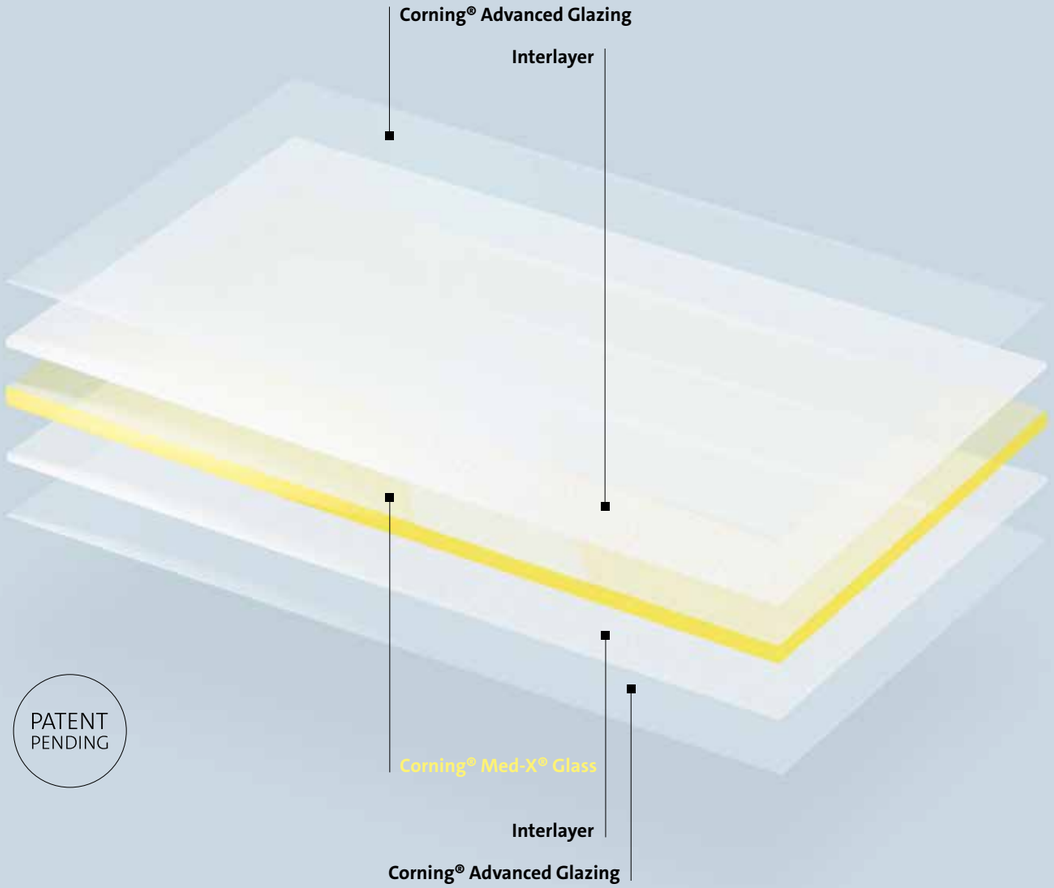
CORNING® MED-X® LT GLASS

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

THIN, CLEAR, **&** ROBUST

CORNING® MED-X® LT GLASS

Innovative Lami-Thin Shielding



PATENT PENDING

Corning® Advanced Glazing = Thin Glass <1 mm

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.

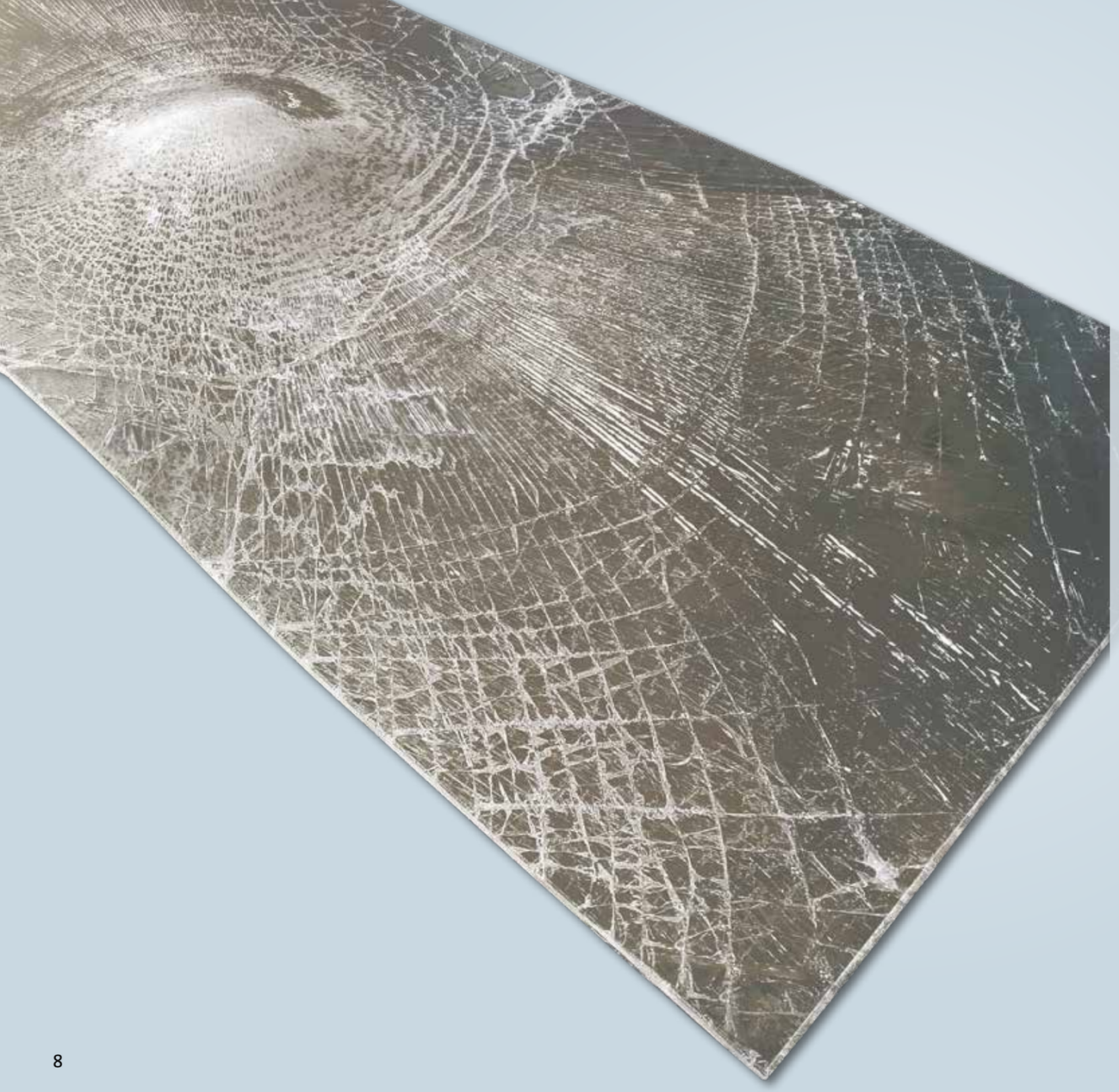
CORNING DEVELOPED A NEW GLASS SOLUTION

A solution that brings

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.**



SAFETY

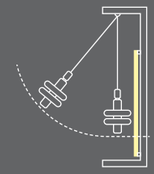
Protects from ionizing radiation
Corning® Med-X® LT Glass offers excellent radiation protection performance: **1.2 mmPb to 5.2 mmPb lead equivalence at 150 kV** tested according to **international standard IEC 61 331:2014.**

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

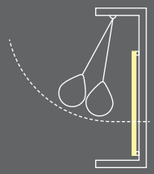
In case of impact, numerous cracks could appear but fragments are being held together: no projection of glass.

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)



EUROPEAN
IMPACT TEST



US
IMPACT TEST

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).

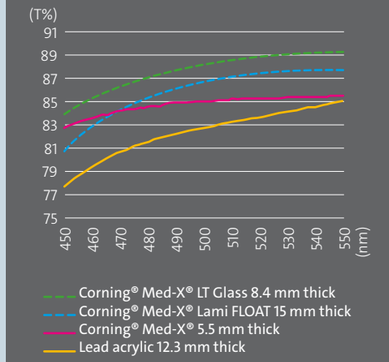
Easy to clean
Corning® Med-X® LT Glass is easy to clean with common detergents.

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/m²** lighter.

LIGHT TRANSMISSION COMPARISON*



* Light transmission % for different materials Shielding @150 kV of 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)

Thickness and weight

Shielding performance (mmPb)	Corning® Med-X® LT Glass Thickness (mm)		Corning® Med-X® LT Glass Thickness (inches)		Core lead glass thickness		Max Plate Mass	
@150kV	Min	Max	Min	Max	(mm)	(inch)	kg/m²	lbs/ft²
1.2	6.9	8.9	0.272	0.351	4.0-5.5	0.157-0.217	33.8	6.9
1.5	7.9	9.9	0.312	0.391	5.0-6.5	0.197-0.256	38.6	7.9
1.7	8.6	10.4	0.339	0.410	5.7-7.0	0.224-0.276	41.0	8.4
2.1	9.9	11.9	0.391	0.469	7.0-8.5	0.276-0.335	48.2	9.9
2.6	11.4	13.4	0.450	0.528	8.5-10.0	0.335-0.394	55.4	11.3
2.9	12.9	15.4	0.509	0.607	10.0-12.0	0.394-0.472	65.0	13.3
3.2	13.9	16.4	0.548	0.646	11.0-13.0	0.433-0.512	69.8	14.3
3.5	14.9	17.4	0.587	0.686	12.0-14.0	0.472-0.551	74.6	15.3
4.1	16.9	19.4	0.666	0.765	14.0-16.0	0.551-0.630	84.2	17.2
4.7	18.9	21.4	0.745	0.843	16.0-18.0	0.630-0.709	93.8	19.2
5.2	20.9	23.4	0.824	0.922	18.0-20.0	0.709-0.787	103.4	21.2

*More information available on request
**Test performed for the LE 2.1 mmPb item
*** Test performed for the LE 1.7 mmPb item

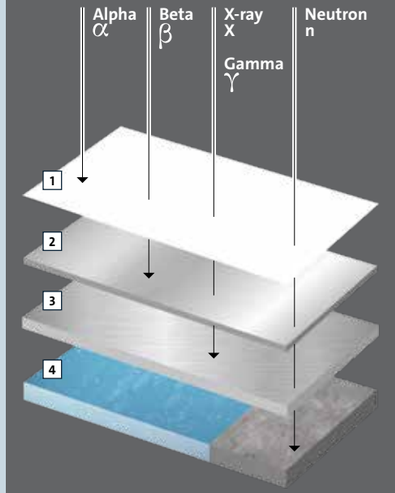
RADIATION SHIELDING GLASS APPLICATIONS

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

TYPES OF RADIATION AND PENETRATION



1 Paper
2 Aluminium, wood, etc.
3 Lead, iron, etc.
4 Water, concrete, acrylic, etc.

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 (viewing area up to 2745 x 1375 mm) and as finished, cut-to-size plates. Customized shapes and finishing are available upon request for the widest range of possibilities.

FDA REGISTRATION

Corning is **the first** radiation shielding glass manufacturer on the market to provide its customers and their end-customers with **full compliance and traceability** adhering to **U.S. Food and Drug Administration (FDA) regulations.**

This compliance demonstrates Corning's commitment to supporting public health, safety, and security through high-quality, radiation shielding glass.

More information on US regulatory requirements for Class 1 medical devices is available in the FDA's Devices section at the following link:
http://www.fda.fov/MdicalDevices/deviceRegulationandGuidance/ImportingandExportingDevices/ucm050126.htm

ISO certifications
Corning S.A.S facilities are strictly controlled in accordance with the Quality Standard ISO 9001, ISO 14001, and ISO 45001.

Corning® Med-X® Glass, Corning® Med-Gamma® Glass, and Corning® Med-X® LT Glass are proudly **manufactured in France.**

www.corning.com/radiation-shielding-glass

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