

# SPECIFICATIONS FOR X-RAY SHIELDING GLASS

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## LX-57B XRAY SHIELDING GLASS

This X-ray shielding glass is a high optical grade lead-barium glass with more than 60% heavy metal oxide, including at least 55% lead oxide. Both glass surfaces are mirror polished. All edges are beveled. Manufactured by continuous process, this glass is able to maintain a rigidly controlled level of physical properties. It offers high light transmission and does not discolor due to radiation exposure. Its physical properties are not affected by exposure to sunlight or water absorption.

### PHYSICAL PROPERTIES

Minimum Density	4.36 gm/ cm <sup>3</sup>
Refractive Index (Nd)	1.71
Light Transmission	87.3%
Knoop Hardness	370
Combustibility	None
Thermal Expansion Coefficient	$80 \times 10^{-7}/C^0$ ( 30 <sup>0</sup> - 380 <sup>0</sup> )

GLASS THICKNESS (mm)	LEAD EQUIVALENT (inches)	(mm)	XRAY PEAK VOLTAGE (Kv)	WEIGHT (lbs. / sq.ft.)
9	5/64	2.0	150	8.1
14	7/64	3.0	200	12.5
17	1/8	3.3	200	14.8

### SIZES

Glass is available any size up to and including 48"x 96". Standard stock sizes are offered and custom sizes are cut from appropriate stock sizes. Glass is typically sized ¼" smaller in both dimensions for installation in frame.

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## SAF-T-LITE™ RADIATION PROTECTOR GLASS

This laminated safety radiation shielding glass is recommended for door lites, side lites and any view window that is less than 25" from a door jamb or less than 36" from the floor. This glass consists of a layer of LX-57B lead glass, an interlayer of polyvinyl/ tri-ethylene and a layer of float glass in a laminated sandwich. Total thickness is 11mm or 7/16 inch. Sizes up to and including 48" x 96" are available. Saf-T-Lite meets the requirements of ANSI Z97.1-1984; Glazing Materials Used in Buildings, Safety Performance Specifications and Methods of Test and 16-CFR-1201, Cat. II; Safety Standard for Architectural Glazing Materials.

Thickness	11mm
Pb Equiv.	1.59mm
X-ray Peak Voltage	150kv
Light Transmission	87.8%
Weight	8 lbs./ ft <sup>2</sup>

## ENVIRONMENTAL

For Leadership in Energy and Environmental Design Projects (LEED) the following information is submitted for LX glass;

Manufacturer	Nippon Electric Glass Co., Ltd.
Country of Origin	Japan
Post/Pre Consumer Rate	0%
Post Consumer Rate	0%
Post Industrial Rate	≈ 30%

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## CLEANING

LX-57B radiation shielding glass tends to tarnish more readily than ordinary window glass. Note the following points:

- Wipe off smudges on the glass with a clean, dry soft cloth.
- Do not use a wet cloth. Wipe dry immediately if LX-57B becomes wet.
- Wipe fingerprints off the glass immediately with a clean, dry cloth
- Smudges not removable by wiping with a dry cloth should be cleaned with a cloth and isopropyl alcohol. Wipe dry with clean cloth.
- Glass must be completely dried to avoid streaking.

## INSTALLATION

Pay attention to the following precautions during installation:

- Do not stick anything to the surface of LX-57B during installation.
- If masking tape is used in caulking, remove it immediately after caulking and remove any residue traces with alcohol and a soft cloth.
- Seal LX57-B using a non-acetic acid type silicone sealant.

## WARRANTY

LX-57B is warranted by the distributor against reduction of radiation shielding capability after years of use as a radiation shielding windows.

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## LX PREMIUM XRAY SHIELDING GLASS

LX Premium is manufactured by laminating a piece of LX-57B between two pieces of sheet glass. This produces an impact safe and shatter resistant glass. The high transparency of the glass can be easily maintained using conventional cleaning methods. Concerns about fogging, staining or discoloration are eliminated by the use of the covering sheet glass. Light transmission at 550nm is more than 80%.

Stock sizes are available up to 48" x 96". Extended size of 48" x 102" available as special order.

GLASS THICKNESS (mm)	LEAD EQUIVALENT (inches)	(mm)	XRAY PEAK VOLTAGE (Kv)	WEIGHT (lbs./sq.ft.)
12mm	1/16	1.6	150	8.8
14mm	5/64	2.0	150	10.4
20mm	7/64	3.0	200	15.5
22mm	1/8	3.3	200	17

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## L.E.E.D PROJECTS (Leadership in Energy and Environmental Design)

Product: LX- 57B

The manufacturer of LX-57B x-ray shielding glass is Nippon Electric Glass Co., Ltd.  
Country of origin is Japan

LX is 0% for Post/ Pre consumer.  
Post consumer rate is 0% for LX.  
Post industrial rate is approximately 30% for LX.