



## RADISHIELD

### DESCRIPTION

RADISHIELD glass has a high barium and lead content, providing optimum protection from harmful radiation in hospitals, nuclear facilities and security scanner applications. These panels offer excellent visible clarity and can be fitted into sealed double-glazed units to offer higher protection. These glass vision panels can be used on doors that lead to X-ray rooms, angiography rooms, MRI scan rooms, and CT and PET scan rooms. They are also ideal for laboratory windows, airport security X-ray screens and even the lenses of safety goggles.

### PRODUCT FAMILY

1. RADISHIELD COMBI: Insulated or multi-laminated bullet-resistant glass tested to EN 1063 standard to satisfy additional requirements - thermal insulation, fire-safety, impact resistance and blast resistance
2. SECUREBUILD: Comprehensive framing systems for windows, doors and shutters with radiation protection

### GENERAL CHARACTERISTICS

#### SHIELDING PROPERTIES

GLASS THICKNESS	MIN. LEAD EQUIVALENCE (MM) FOR STATED X-RAY TUBE VOLTAGE							MAX. PLATE MASS
	80 kV	100 kV	110 kV	150 kV	200 kV	250 kV	300 kV	
4.0 to 5.5	1.4	1.4	1.3	1.2	1.0	1.0	1.0	26.4
5.0 to 6.5	1.7	1.7	1.7	1.5	1.3	1.3	1.3	31.2
5.7 to 7.0	1.9	1.9	1.9	1.7	1.5	1.5	1.5	33.6
7.0 to 8.5	2.3	2.3	2.3	2.1	1.8	1.8	1.8	40.8
8.5 to 10	2.7	2.8	2.9	2.6	2.1	2.1	2.2	48.0
10 to 12	3.2	3.2	3.3	2.9	2.1	2.1	2.2	48.0
11.0 to 13.0	3.6	3.5	3.6	3.2	2.8	2.8	2.9	62.4
12.0 to 14.0	4.0	3.8	4.0	3.5	3.0	3.1	3.2	67.2
14.0 to 16.0	4.7	4.5	4.6	4.1	3.5	3.6	3.7	76.8
16.0 to 18.0	5.3	5.1	5.3	4.7	4.0	4.1	4.3	86.4
18.0 to 20.0	6.0	5.7	5.9	5.2	4.4	4.6	4.8	96.0

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

Additional Process Capability: ENAMELITE, sand-blasting, acid-etching

## PHYSICAL PROPERTIES

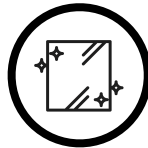
DESCRIPTION	LEVELS
Refractive Index nd	1.76
Transmission % @ 500 nm through 5 mm path	≥ 85.0
Lead (Pb)	52%
Barium (Ba)	17%
Density (g/m <sup>3</sup> )	4.8
Knoop Hardness (kg/mm <sup>2</sup> )	409
Young's Modulus (GPa)	62.6
Torsion Modulus (GPa)	24.8
Poisson's Ratio	0.26
Coefficient of Thermal Expansion (X 10 <sup>-7</sup> / °C)	78.8

## UNIQUE SELLING POINTS



### BESPOKE

RADISHIELD COMBI enables multi-protection capabilities (bullet, fire, etc.)



### POLISHED

Fully polished surface for great aesthetics



### SERVICE

Industry best delivery times

## DIMENSIONS

FEATURE	DESCRIPTION
Minimum Size	100 mm X 200 mm
Maximum Size	1400 mm X 2800 mm

## LABELLING

Each piece of RADISHIELD shall be permanently labeled with the FG logo and the relevant standard description. In cases where the glass is made under a specific listing, the same shall be incorporated in the label. Order-specific labeling is also possible, under certain terms and conditions.

## STANDARDS

1. RADISHIELD is strictly controlled and is manufactured in accordance with the Quality Standard ISO 9001, the environmental Standard ISO 14001 and Health & Safety Standard OHSAS 18001.