



SAFETY GLASS.

SAFETY GLASS FOR INDUSTRIAL APPLICATIONS.

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Berliner Glas offers two types of safety glasses according to the highest quality standards: the tempered safety glass (TSG) and the laminated safety glass (LSG). We produce our safety glasses based on the recommendations of DIN EN 12150 and DIN EN ISO 12543.

Laminated Safety Glass

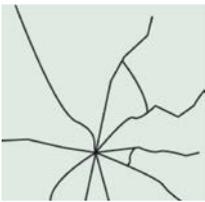
Laminated safety glass (LSG) consists of a laminate of at least two glass panels and a polyvinyl butyral (PVB) film. By means of this special construction, the fragments are bound to the film during destruction and the fragment quantity is kept small. This allows residual resistance of the LSG unit after breakage.

Float glass in different thicknesses is basically used, also tinted, anti-reflective or chemically strengthened. Such glass may have an asymmetrical structure to reduce fragments to a minimum, e. g. to protect the eyes. The PVB-foil exhibits an extraordinary resistance as well as transmission in the visible spectrum and filter properties in the UV-spectrum. As our standard we use foil with a thickness of 0.38 mm or 0.76 mm.

A combination of both safety glasses or rather the use of tempered safety glass in a laminated safety glass is possible.

Characteristic

- ▶ Splitter bond in case of breakage, residual resistance



Specifications

- ▶ Glass panels as a glass-foil-glass combination
- ▶ From 2 mm (measured as a laminated glass)
- ▶ Temperature load up to 80 °C
- ▶ Surface defects according to ISO 10110 part 7

Nominal thickness (mm)	Thickness of individual glass (mm)	Foil thickness (mm)	Thickness of glass (mm)	
			Minimal	Maximal
2.0	0.8-1.0	0.38	1.98	2.38
2.5	1.0-1.2	0.38	2.38	2.78
3.0	1.2-1.4	0.38	2.78	3.18
3.5	1.5-1.7	0.38	3.38	3.78
4.0	1.8-2.0	0.38	3.98	4.38
6.0	2.8-3.0	0.38	5.98	6.38

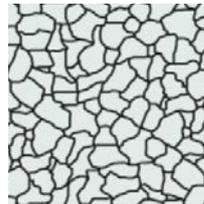
Tempered Safety Glass

As opposed to laminated safety glass (LSG), tempered safety glass (TSG) consists only of an individual, specially thermally treated panel. The glass is heated to approx. 640 °C and then cooled suddenly. A tensile stress is created in the core of the glass and a compressive stress on the glass surface. This process gives TSG an increased resistance to shocks and impacts. This glass does not react to large changes in temperature and breaks into small, dull pieces when exposed to extreme pressure. This greatly reduces the risk of injury.

Float glass in thickness from 4 mm is basically used, also tinted or anti-reflective.

Characteristic

- ▶ Dull crumbling in case of breakage



Specifications

- ▶ Single glass panel
- ▶ Flat glass from 4 mm thickness
- ▶ Temperature load up to 250 °C
- ▶ Surface defects according to ISO 10110 part 7