

Laminated Safety Glass

Product

BERLINER GLAS manufactures flat and bent laminated glass as safety glass for measuring devices, as protective eye-safety-glasses according to EN 1565 and EN 167, as screens for displays and as formed glass. Such glass may have an asymmetrical structure to reduce fragments to a minimum, e.g. to protect the eyes or sensitive instrument parts.

Also multiple layers of Polyvinylbutyral (PVB)-foil and glass are available (i.e. triplex glass).

Float glass in different thicknesses is basically used, also tinted, anti-reflective or chemically toughened glass. 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. On request, we can also process foils, which are twice- or three-times thicker.

Specifications

Dimensions: Measures up to 240 mm x 200 mm. Larger dimensions on your request.

The glass sizes of bent laminated safety glass are dependent on radii at app. 50 mm x 60 mm up to 250 mm x 250 mm.

Strength: From 2 mm measured as laminated glass. The strength is depending on typical trade glass thicknesses and the desired laminated thickness.

The table below serves as a guideline for typical structures when a 0.38 mm thick laminate is used.

Nominal thickness (mm)	Thickness of individual glass (mm)	Foil thickness (mm)	Thickness of laminated glass	
			minimum	maximum
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	3,39	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

Surface defects and inclusions: According to your pacifications following ISO 10110, Part 7 or DIN 3140, Part 7 up to 5/1 x 0.1

Active index: <= 0.06 diopters

Temperature tolerance: up to 80°C

Measuring instruments for quality assurance

Gloss	BYK Gardner Glossmaster, Haze-Guard Plus
Roughness	Perthometer, White light Interferometer
Transmission and reflection	Spectrometer
Outlines	Smartscope, optical 3D- measurement
Layer Resistance	Climatic chamber, abrasion test
Cleanliness	Dark field illuminator
Flatness	Interferometer
Surface defects/inclusions/edge chips	Profile projector, digital microscope