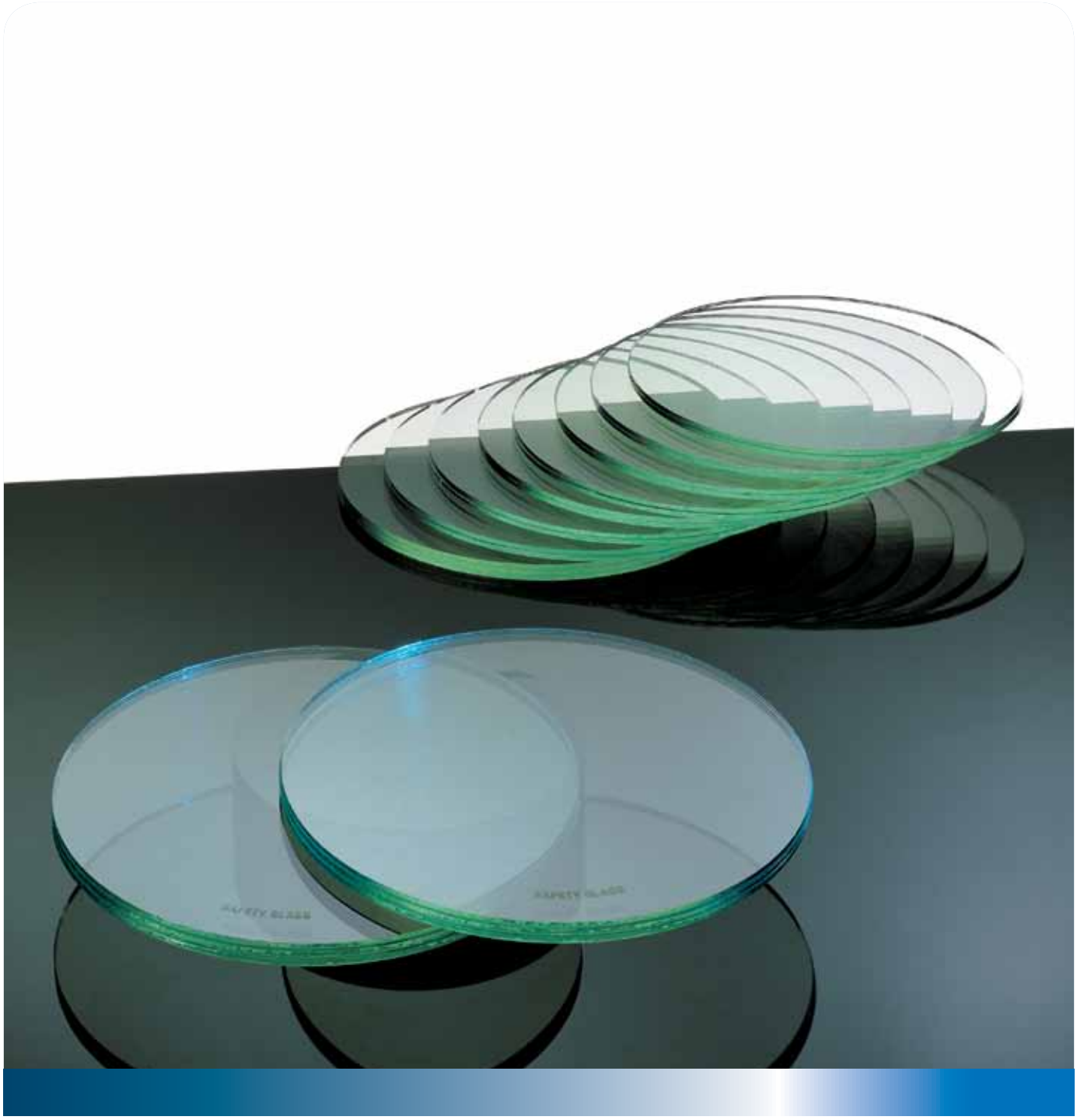

Technical Glass.

Laminated Safety Glass.

BERLINER GLAS

BERLINER GLAS GROUP

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 strengthened 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.

Specification

Dimensions	up to 400 x 700 mm. Larger dimensions on request. The glass sizes of bent laminated safety glass are dependent on radii at approx. 50 x 60 mm up to 250 x 250 mm.
Thickness	from 2 mm measured as laminated glass. The thickness is depending on typical trade glass thicknesses and the desired laminated thickness
Surface defects/inclusions	according to specification 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
Mechanical strength	Ball drop test for measurement of DIN-glasses for eye protection according to EN standards 166 and 167
Chip amount after ball drop test	Precision balances
Surface defects/ inclusions/edge chips	Profile projector, digitales Microscope

Glass/Foil/Glass

Nominal thickness (mm)	Thickness of individual glass (mm)	Foil thickness	Thickness of laminated glass (mm) 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

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