

BERLINER GLAS GROUP

**At a glance**

Headquarter: BERLINER GLAS KGaA, Berlin, Germany  
Managing Partner, CEO: Dr. Andreas Nitze  
Managing Director: Joerg Bannicke  
Founded: 1952  
Staff: 950  
Production Area: 43.200 m<sup>2</sup>  
Regions of Export: Worldwide



**Berliner Glas US**

117 Underwood Road · Williamsburg · USA-Virginia 23185  
Phone +1-757-229 9368 · Fax +1-757-229 5213  
mwenzler@berlinerglas.com  
www.berlinerglas.com



**Berliner Glas KGaA Herbert Kubatz GmbH & Co.**

Waldkraiburger Strasse 5 · D-12347 Berlin  
Phone +49 (0) 30/60 905-0 · Fax +49 (0) 30/60 905-100  
techglas@berlinerglas.de  
www.berlinerglas.com



**Berliner Glas KG Herbert Kubatz GmbH & Co.**

Weidenhalde 20 · D-74523 Schwäbisch Hall  
Phone +49 (0) 791/93 295-0 · Fax +49 (0) 791/93 295-50  
info@berlinerglas-sha.de  
www.berlinerglas.com



**Berliner Glas Herbert Kubatz GmbH & Co. KG Syrgenstein**

Giengener Strasse 16 · D-89428 Syrgenstein-Landshausen  
Phone +49 (0) 9077/95 895-0 · Fax +49 (0) 9077/95 895-50  
techglas@berlinerglas.de  
www.berlinerglas-st.com



**SwissOptic AG**

Heinrich-Wild-Strasse · CH-9435 Heerbrugg  
Phone +41 (0) 71/727-3074 · Fax +41 (0) 71/727-4686  
swissoptic@swissoptic.com  
www.swissoptic.com



**SwissOptic (Wuhan) Co., Ltd.**

No. 1, 2<sup>nd</sup> Road, Huagong Park  
Eastlake High Technology Development Zone  
Wuhan (430223) China  
Phone +86 27 8792 8588 · Fax +86 27 8719 6153  
wuhan@swissoptic.com  
www.swissoptic.com

Solutions made visible.  
Focus on Display Panels.



# Intelligent Display Solution.

**BERLINER GLAS GROUP is one of the leading suppliers in Europe of technical glass refinement, precision optical components, electro-optical assemblies, optomechanical modules and systems.**

**Beyond this, we develop measurement set-ups to specific consumer requirements. In the technical glass division, we support our customers with high-quality technical glass refinement for consumer or professional displays, sensors or industrial applications and architectural and lighting designs.**

The outstanding capability of glass and similar materials has increased through the development in processing and finishing technologies. In particular, the functions of glass have been multiplied through its transparency.

For many decades, we at BERLINER GLAS have been directly involved in shaping this development.

## Solutions made visible – Top Glass makes the difference

Functional front panels are common to many displays in various applications. They protect against or control impact or radiation, ensure high resolution or prevent undesired viewing.



Top glass for flat screens (Image: ©METZ)

Functional glass panels from BERLINER GLAS constitute an important benefit for all displays where information has to be clearly visible and many functions are needed. The top glass is offered for various technologies such as TV, PC or satellite/navigation systems, sensors or industrial applications, point of sale or safety use.



Display panel for industrial application

## Options at a glance

- NONFLEX Tec etched anti-glare float glass in thicknesses of 0.7 - 3.15 mm (double sided) or 1.0 - 3.15 mm (single sided) with various levels of surface roughness and gloss values to avoid sparkling and reflection and to guarantee clear, true colors (single sided: gloss 75° - 95°, double sided: gloss 90° - 110°, max. size: 560 - 580 x 825 mm).

- Using a wet chemical dip coating process, double or single sided antireflection layers (also broadband, UV and NIR) lead to glare reduction/high resolution and have a specified influence on optical performances.

- Premium printing on glass or glass ceramic gives the final touch and makes the panel unique in appearance and function.

High-quality online processing and precise borderless printing in maximum dimensions of 1.600 x 1.200 mm and a creative combination of standard and individual design set us apart.

- Process controlled thermal tempering and chemical strengthening improve impact, scratch or temperature resistance and flexibility strength. Thin but strengthened glass leads to weight reduction, decreases mounting costs and improves the optical performance.

- Shielding in the low-impedance ranges avoids electromagnetic radiation (EMC). Panels are protected against impact with several approaches (PVB/PU/EVA film for laminated safety glass) in addition to a chemical strengthening of the glass components. Additional lamination with AR or conductive foil in combination with hard coating has a controlled influence on the optical performance depending on the customer's needs and protects against fragmentation, too.

- CNC-shaping, waterjet cutting and machine edging guarantee tight tolerances.

**BERLINER GLAS GROUP – your one-stop shop for complete fulfilment in design, production and in-house assembling.**

## Quality accepts no compromise

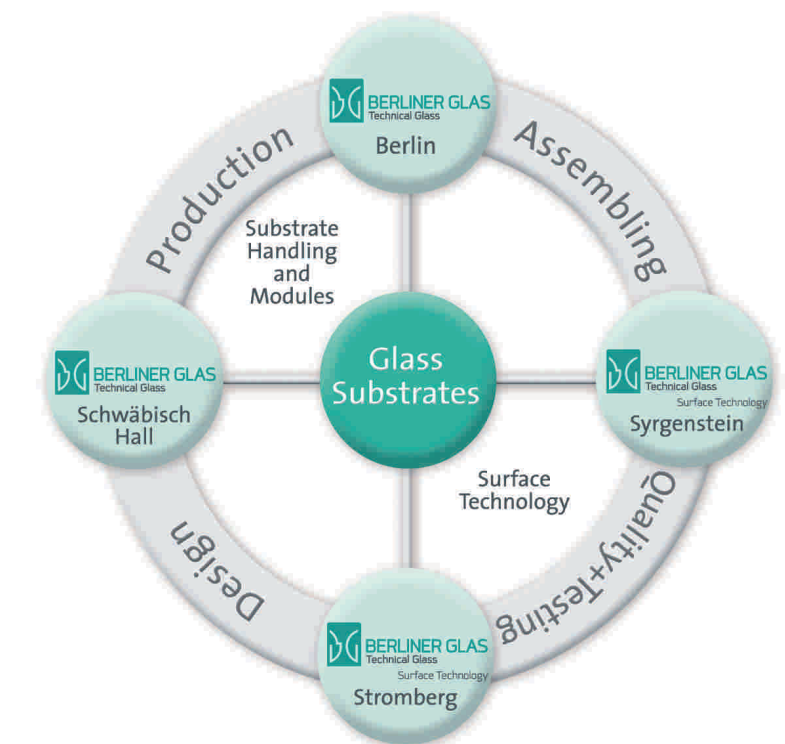
Quality and protection of environment are certified under DIN ISO 9001 and DIN ISO 14001 and are fundamental components of our corporate philosophy.

We continually check our work with optimized measurement processes that are adapted to the specific product.

## Your benefit from our experience

The companies in the technical glass division of our group have been completely at home in the technical glass processing industry for several decades. Our staff, approximately 950 in total, combines the experience of generations. As an owner-managed medium-sized company we meet your requirements and preferences quickly and with flexibility.

With its four production sites including clean room environment, the technical glass division is characterized by high synergy and a wide variety of possibilities for the optimum solution.



Properties	Measuring Instruments
Gloss	: BYK Gardner Glossmaster, Haze-Guard Plus
Roughness	: Perthometer, White light interferometer
Transmission and reflexion	: Spectrometer
Contours	: 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

**High Tech in Glass – that's what we stand for.**

**We guarantee maximum functionality to meet the challenges of the future.**