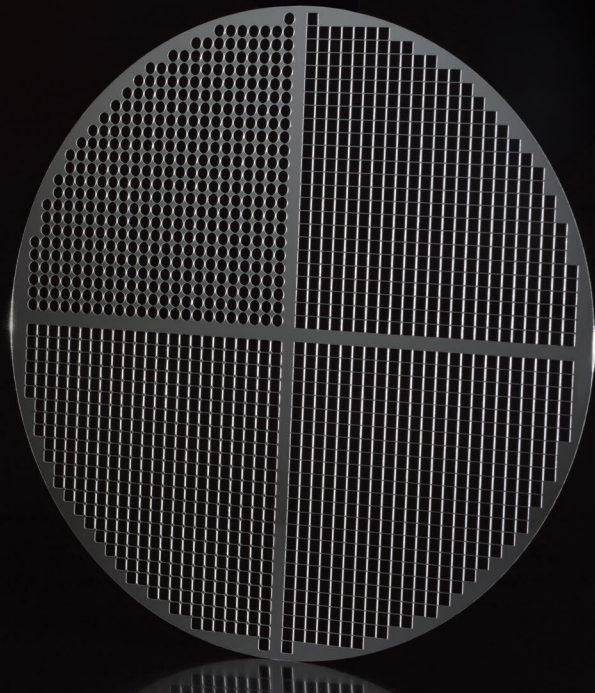




FLEXINITY®

Structured glass that helps miniaturized systems align, integrate and perform.

FLEXINITY® is SCHOTT's portfolio of structured glass substrates, wafers and panels for applications that require precise geometries, tight tolerances and reliable glass performance.

Based on selected SCHOTT specialty glasses, FLEXINITY® enables customized through-structures in different formats, thicknesses and layouts. Engineers gain greater design freedom when developing miniaturized, high-precision components for sensing, optoelectronics, diagnostics, automotive and industrial applications.

Structured glass for precise integration

As components become smaller and more functionally integrated, substrate geometry becomes a critical part of system performance. Precise openings, defined layouts and accurate positioning help ensure reliable alignment with partner components and support stable integration in demanding technical environments.

FLEXINITY® combines SCHOTT glass material expertise with precision structuring capabilities. The result is a versatile platform for applications where geometry, material properties and reproducibility must work together.

Part of the FLEXINITY® portfolio

For requirements beyond standard through-structures, the FLEXINITY® portfolio includes two specialized variants:

- FLEXINITY® mini for miniature glass parts and
- FLEXINITY® level for blind cavities, stepped bridges and combined through- and non-through structures.

Key advantages



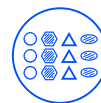
Broad range of glasses

Based on selected SCHOTT materials for different optical, thermal, chemical and integration requirements.



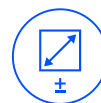
Wide spectrum of dimensions

Different thicknesses and formats up to 600 mm in diameter.



Flexible layouts

Through-structures can be realized in customer-specific geometries, patterns and arrangements.



Tight feature and position tolerances

Feature size and position tolerances of $< 20 \mu\text{m}$, equivalent to $\pm 10 \mu\text{m}$, support precise alignment with partner components.



Small structure radii and bridge widths

Structuring radii down to $25 \mu\text{m}$ and bridge widths down to $100 \mu\text{m}$ enable compact, high-density designs.

SCHOTT

FLEXINITY®

Precision-structured glass solutions with tight feature and position tolerances.

Why FLEXINITY® for advanced sensing and vision systems?

Sensing and vision systems depend on precise alignment, stable component positioning and reproducible stack design. FLEXINITY® supports these requirements with structured glass substrates that combine precise geometry with stable material properties.

Relevant capabilities:

- Feature and position tolerances < 20 µm
- Structuring radius down to 25 µm
- Bridge widths down to 100 µm

Why FLEXINITY® for optoelectronics and mobile communications?

Compact optoelectronic and communication components require accurate positioning and material platforms that can be integrated with other functional elements. FLEXINITY® enables customized through-structures in selected SCHOTT glass types to match dimensional, optical, thermal or chemical requirements.

Relevant capabilities:

- Customer-specific layouts
- Formats up to 600 mm in diameter
- Thickness range from 0.1 – 3.3 mm depending on glass type

Why FLEXINITY® for diagnostics and industrial applications?

Diagnostic and industrial systems often require robust, repeatable and scalable component platforms. FLEXINITY® provides structured glass solutions where defined geometries, material stability and reliable processing are critical.

Relevant capabilities:

- Feature and position tolerances < 20 µm
- Customer-specific layouts
- Thickness range from 0.1 – 3.3 mm depending on glass type

Available glass types

FLEXINITY® structured substrates are available based on selected SCHOTT glass materials:

- BOROFLOAT® 33
- D 263® T
- AF 32®
- MEMpax®

Each glass type offers a specific combination of material properties. The suitable choice depends on the application, required dimensions, processing conditions and system-level requirements.

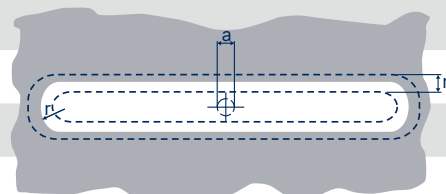
Applications

FLEXINITY® can support applications where miniaturization, precision geometry and stable glass performance are important, including:

- Automotive sensing and electronics
- Mobile communications
- Optoelectronics
- Diagnostics
- Industrial sensing and integration
- Structured substrates for advanced component designs

Standard structuring capabilities*

Thickness range (depending on glass type)	0.1 – 3.3 mm
Format	Max. 600 mm in diameter 
Layout	Through structures according to customer specifications
Structuring radius (r)	Down to 25 µm
Minimum dimension of structure element	100 µm
Feature size tolerance (r')	< 20 µm (equiv. ± 10 µm)
Wall taper angle	90° ± 0.5°
Edge exclusion zone	≥ 3 mm
Position tolerance of features (a)	< 20 µm (equiv. ± 10 µm)
Bridge width between structure elements	Down to 100 µm



* Limitations in feature design and demands deviating from these capabilities will be evaluated upon request



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