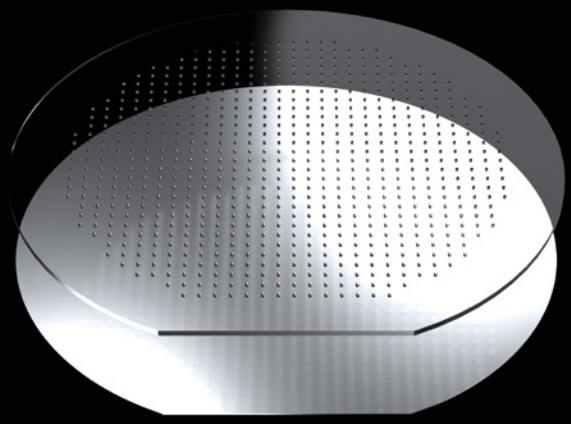
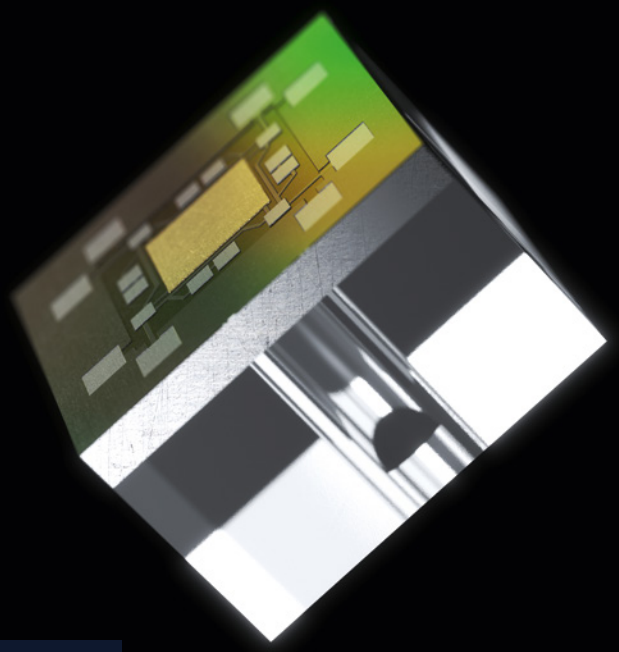




SCHOTT FLEXINITY®

for Pressure Sensors

With FLEXINITY®, SCHOTT is introducing an innovative portfolio of structured glass substrates which offers highly accurate and versatile features. The availability of several glass materials in a wide range of thicknesses, enables SCHOTT to provide customized solutions for a vast variety of applications.

In particular in the area Pressure Sensor FLEXINITY® deploys its specific performance strength compared to competitive technologies.

Application information

Improved and next-gen Si-MEMS based pressure sensors require advanced packaging components that contribute to better sensor performance and cost effective manufacturing. FLEXINITY® structured wafers provide ultra-high structuring accuracy, position tolerances and feature size tolerance combined with exceptional durability and high temperature resistance.

Wide spectrum of dimensions

Anodic bonding

Tight tolerances

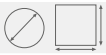
SCHOTT
glass made of ideas

SCHOTT FLEXINITY®

Specifications

FLEXINITY® structured wafers are available as BOROFLOAT® 33 and MEMpax®. Having similar chemical and physical characteristics such as linear thermal expansion (CTE) corresponding with that of silicon, both glasses are perfectly suited for use in anodic bonding processes.

Due to differences in manufacturing process, BOROFLOAT® 33 and MEMpax® are different in terms of availability of thickness and surface characteristics.

	BOROFLOAT® 33	MEMpax®
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	≥ 100 µm	
Feature size tolerance	< 20 µm (equiv. ± 10 µm)	
Wall taper angle	90° ± 0.5°	
Edge exclusion zone	≥ 3 mm	
Position tolerance of features	< 20 µm (equiv. ± 10 µm)	
Position tolerance of structure to reference positions	± 50 µm	
Surface roughness R_a	≤ 1.5 nm	
Coefficient of mean linear thermal expansion α (20 °C; 300 °C) (statistic measurement)	$3.3 \cdot 10^{-6}$/K	
Transformation temperature T_g	532 °C	

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

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