



# Carrier Solutions

## Ultra-Low TTV Glass Wafers

Our Ultra-Low TTV Glass Wafers have superior surface quality, flexible thickness, and can be available in a wide range of CTEs to meet customers' most challenging requirements – from research & development phase to mass production.

### Applications

*This glass wafer has one of the lowest TTV currently available and enables advanced semiconductor manufacturing as well as RF applications for 5G connectivity and hybrid bonding.*

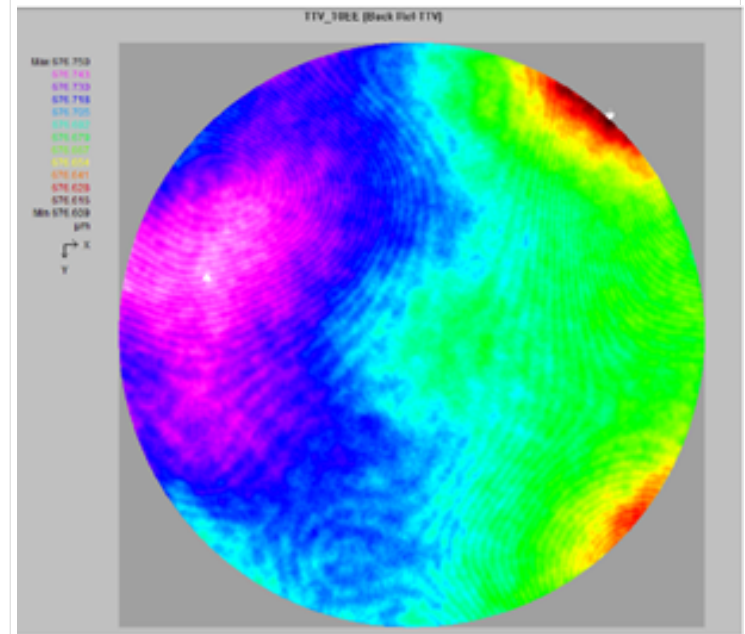
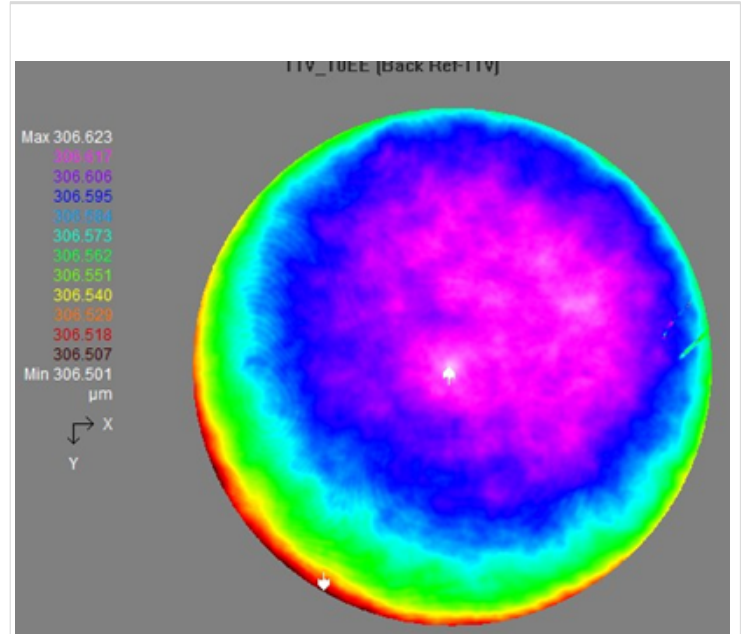
- Enables ultra-thinning of device wafer (final thickness <math><10\mu\text{m}</math>)
- Allows more TTV tolerance for the adhesive layer to achieve same total stack TTV in semiconductor packaging
- Supports existing temporary bonding infrastructure to enable thinner device wafers
- Improves yield of Z-height sensitive processes

### Key Benefits

- TTV 0.2 $\mu\text{m}$  is available in sizes up to 200mm (3mm edge exclusion)
- TTV 0.4 $\mu\text{m}$  is available in sizes up to 300mm (2mm edge exclusion)
- This product is available now in a range of thicknesses for a variety of glass compositions.
- Available in across a range of CTEs from 3.4 to 12.6 ppm/ $^{\circ}\text{C}$
- High stiffness to help overcome CTE mismatch challenge
- Optically transparent enabling UV or IR based debond processes and laser mark serialization

### Options and Features

Diameter (mm)	100-300
Thickness (mm)	0.5 to 1.0
Edge Beveling	Radius (R) Type and Chamfer (C)
Surface Roughness (nm)	< 1.0
Features	Semi-standard notch/flat or custom
Surface ID Marking	Semi-standard or custom



For more information:  
[www.corning.com/precision-glass-solutions](http://www.corning.com/precision-glass-solutions)  
[precisionsg@corning.com](mailto:precisionsg@corning.com)