Corning® Half Area 96- and 384-well Black Glass Bottom Microplates

Technical Brief

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Corning half area 96- and 384-well black glass bottom microplates are designed for high-sensitivity fluorescence detection, where low background and well bottom flatness are critical. Glass bottom microplates have excellent flatness and thickness uniformity to provide optically clear as well as optically flat surfaces for cell-based assays.

- Glass Bottom Thickness: 200 µm
- Microplate Bottom Flatness: <50 µm

Comparable Benchmark Against Other Commercially Available Glass Bottom Microplates

Corning glass bottom microplates were assessed against other commercially available glass bottom microplates for overall flatness (Figure 1) and well bottom elevation (WBEV, Figure 2) using a Keyence laser system (Keyence LT-8105). Visual clarity and overall functionality were assessed using the GE Insight High Content Imager (Figure 3).

Figure 1

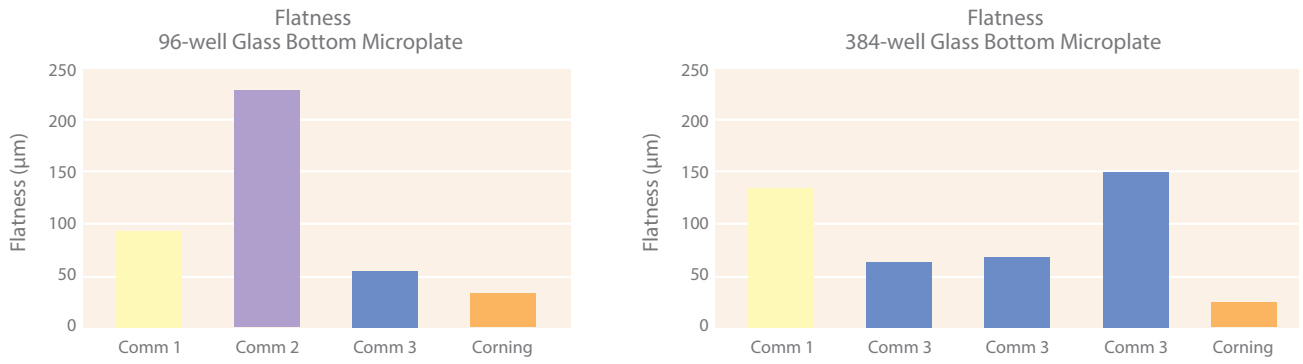
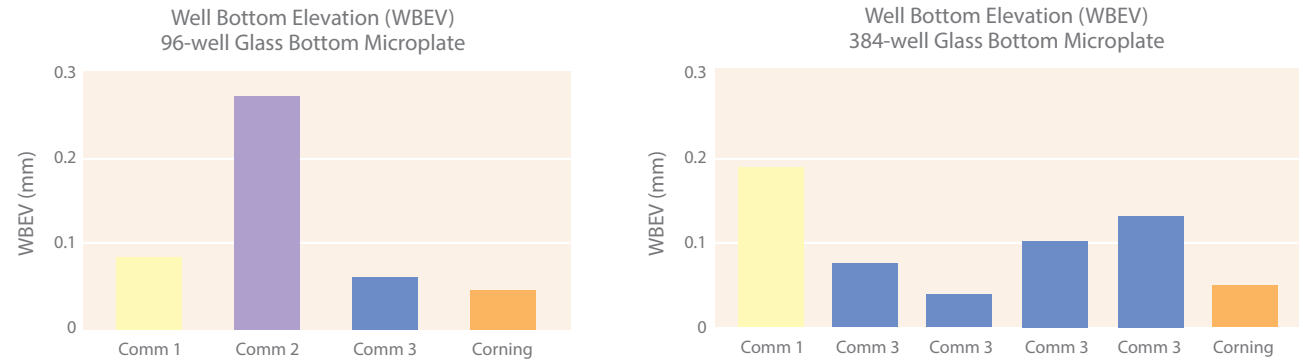


Figure 2



Figures 1 and 2. Benchmarking results comparing Corning 96-well half area (left) and 384 well (right) glass bottom microplates. Corning outperformed the commercial brands.

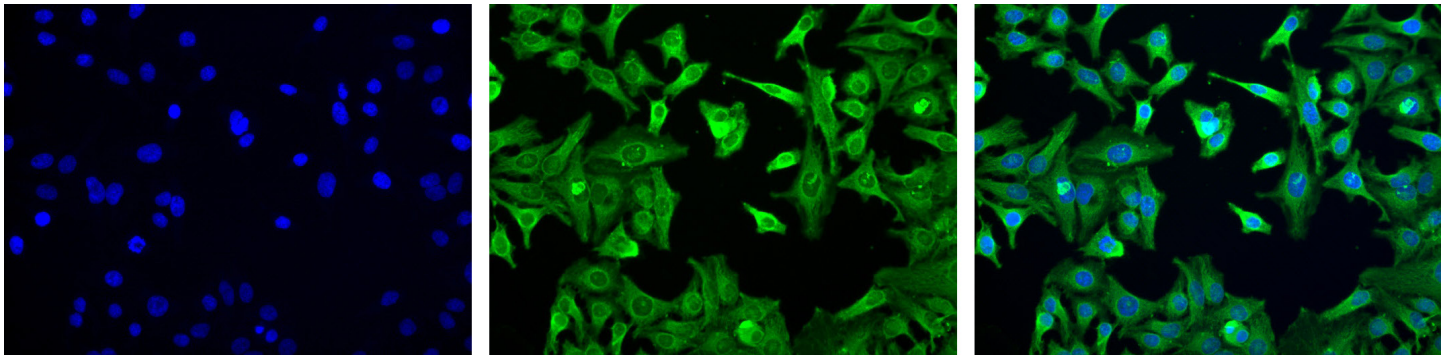


Figure 3. CHO cell images using the GE Insight Imager. (Left) CHO cells stained with the nuclear stain DAPI. Middle: Green Fluorescent Protein (GFP) staining. (Right) Overlay of the two images. Magnification = 20X.

Summary

- Corning® glass bottom microplates are ideal for high content imaging.
- The microplate flatness (<50 µm) is better than the commercial brands of microplates tested.
- The 96-well half area and 384-well microplate formats are designed for screening cell-based assays and provide options for assay miniaturization.

Corning Glass Bottom Microplate Dimensions for Use When Optimizing on High Content Imagers

Cat. No.	Description	Well Area (mm^2)	Bottom Material	Flatness Spec (µm)	Thickness of Plate Bottom (µm)	Well Bottom Elevation (mm)	Refractive Index of Plate Bottom
4580	Glass bottom 96-well (half area) microplate	15.9	Glass	<50	200	2.4	1.523
4581	Glass bottom 384-well microplate	6.15	Glass	<50	200	3.3	1.523

How to Purchase: For specific availability in your region and purchasing options, terms and conditions of sale, customer/product support, and certificates, visit **www.corning.com/how-to-buy**.

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