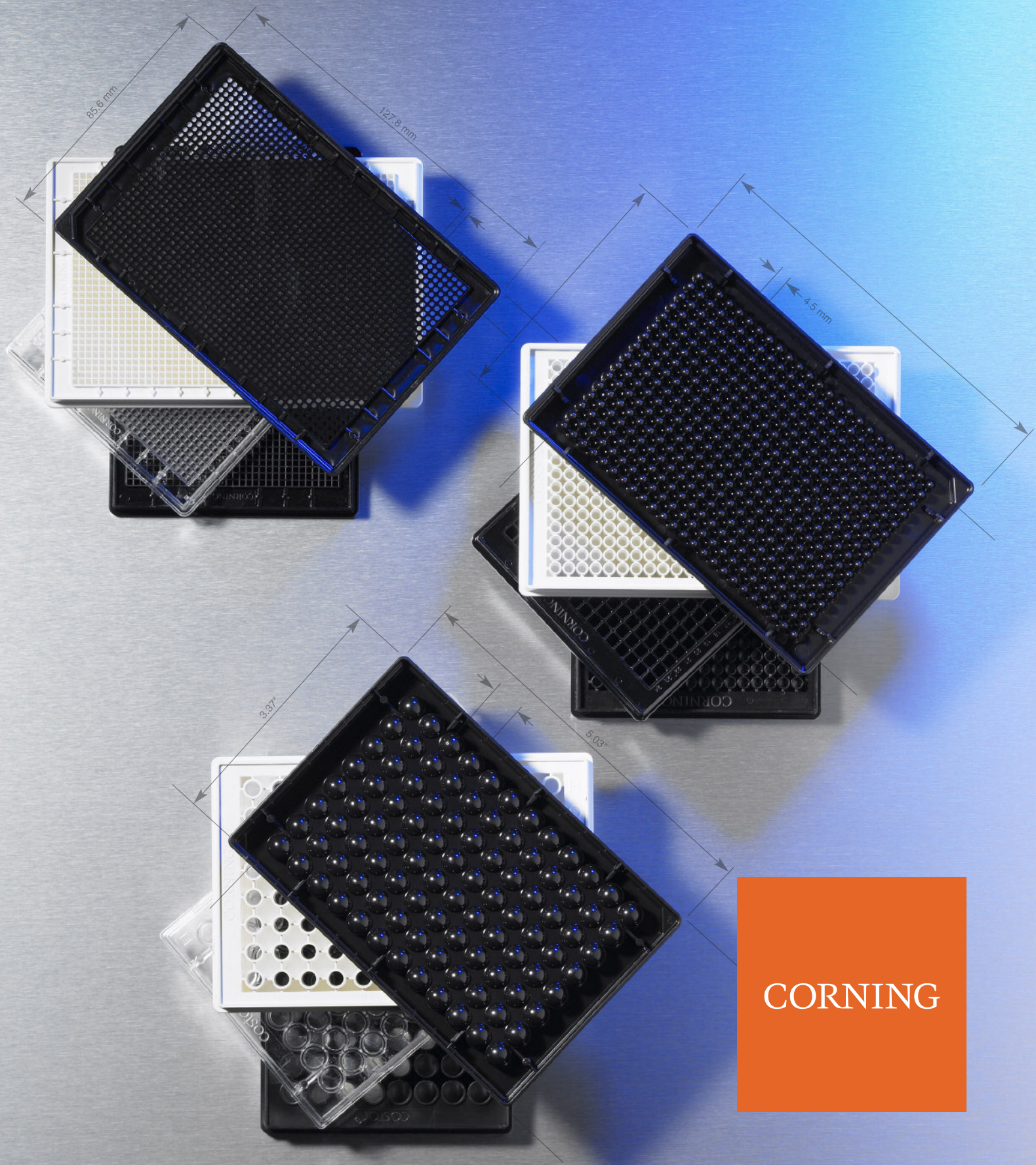
# Corning® Microplate Selection Guide

For Assays and Drug Discovery




CORNING

## Introduction

Corning Life Sciences is pleased to present our new Microplate Selection Guide. In this guide, you will find a selection of Corning's newest and most requested products for assays and high-throughput screening.

For up-to-date information on Corning Life Sciences' comprehensive range of products and services, go to **www.corning.com/lifesciences** where you can access:

- New Products
- Product Catalog
- Technical Information including:
  - Application Notes
  - Instruction Manuals
  - Product Bulletins
  - Product Selection Guides
- Microplate Equipment Compatibility Guide
- Product Literature
- Distributor Information

For additional product information, please visit **www.corning.com/lifesciences**, or call 1.800.492.1110. Customers outside the United States, please call 1.978.442.2200 or contact your local support office. See back cover.

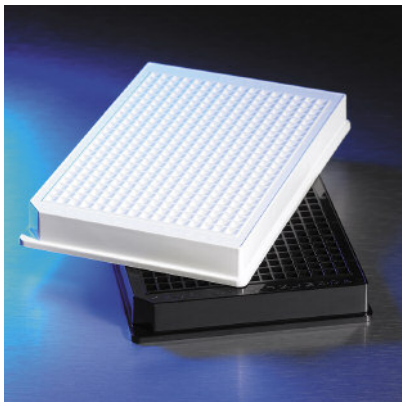
## Ordering Information

Corning products are available through any authorized Corning support office or distributor. Please see our web site for a complete listing.

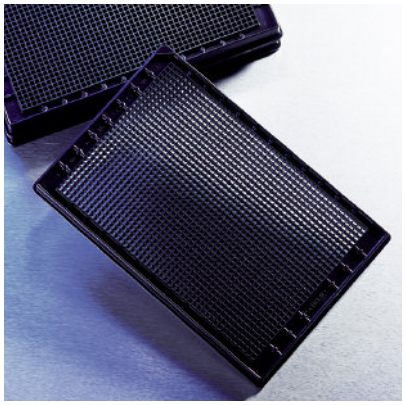
To place an order, simply contact the distributor of your choice. For each requested product, provide the Corning catalog number, product description, and desired quantity.

CORNING

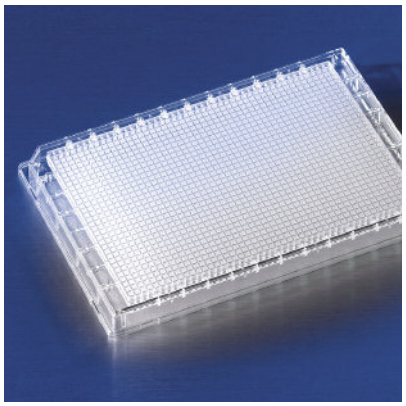
# Microplates



384 Well Low Flange Microplate, page 14



1536 Well Black Clear Bottom Microplates, page 17



1536 Well Echo™ Qualified Microplates, page 18

# Overview

## DESIGNED FOR PERFORMANCE

Corning has been setting the standard for excellence in life science labware for over 85 years. With our comprehensive line of plasticware, including assay products, we continue to be an industry leader. Corning strives for the highest standards in product design and plastics molding.

Corning Life Sciences microplates and accessories are manufactured under strict process controls guaranteeing consistent product performance. Our manufacturing facility is located in Kennebunk, Maine, registered to the ISO 9001 2008 standards. ISO registration is recognized worldwide as a standard of excellence for quality systems.

Customers can request a Certificate of Compliance for any Corning® microplate. Also available are detailed product descriptions and drawings that highlight product dimensions and testing procedures. All are available by contacting your local Corning Life Sciences office. See the back cover of this guide for a listing.

## THE EQUIPMENT COMPATIBILITY PROGRAM

**Quality and Compatibility, Only from Corning.**

Corning Life Sciences maintains a comprehensive equipment compatibility program in which leading equipment manufacturers certify the compatibility of our products with their instruments. This information is continually updated with our new products as well as new instruments.

Corning microplates offer compatibility with a wide range of laboratory instrumentation, including microplate readers, microplate washers, liquid handling instruments, automation accessories, and robotic systems. To make it easy to identify the Corning microplates that perform well with your instruments, we've assembled an Equipment Reference Guide with the help of manufacturers from throughout the industry. The Guide is available at www.corning.com/lifesciences. To ensure the accuracy of this reference guide, we invited leading manufacturers to test our microplates on their instruments using extensive criteria for fit and function. For example, a microplate reader manufacturer would have tested a Corning microplate for proper fit in the microplate carrier, suitable optical performance, and compatibility with all of the instrument's accessories, including microplate stackers and bar code readers. If the microplate met all criteria, the manufacturer then signed a form certifying that the microplate was tested for fit and function and found compatible with their instrument and all relevant accessories. So you have their assurance as well as ours that the Corning microplates you choose will perform as needed. Please use this Equipment Reference Guide with confidence.

## SELECTING THE BEST CORNING® MICROPLATE FOR YOUR APPLICATION

Corning offers a range of microplates in a variety of well designs and sizes, polymer materials and colors, and surface treatments. This guide includes 96, 384, and 1536 well microplates. Information on Corning microplates in lower density formats (e.g., 24 and 48 well plates) can be found in our on-line product catalog at **www.corning.com/lifesciences**.

There are three simple steps for selecting the best Corning microplate for your application:

1. Choose the Corning microplate format and well design
2. Choose the Corning microplate material and color
3. Choose the Corning surface treatment

### 1 Choose the Corning Microplate Format and Well Design

Corning microplate dimensions meet industry standards, ensuring compatibility with all microplate equipment and automation. Our microplates feature an A-1 corner notch design. The A-1 corner notch allows for quick visual orientation of microplates when setting up automation runs, thereby reducing chances for robotics problems and lost productivity.

Corning microplates are available in several well shapes, optimized to meet different application requirements.

- **Flat bottom** – for bottom reading microplate readers and cell culture applications
- **Round bottom** – for improved mixing and washing
- **V-bottom** – for easier removal of total well contents
- **Easy Wash™ bottom** (round to narrowed flat well bottom) – for improved washing in immunoassays

In addition, Corning offers Half Area microplates for the 96 well format and Low Volume microplates for the 384 well format. These microplates are ideal for assays using reduced working volumes and can provide savings in reagent and compound use.

**Well Shape Selection Chart**

| | Microplate Format | | | | | |
|---|---|---|---|---|---|---|
| **Well Shape** | **96 Well** | **96 Well Stripwell™** | **Half Area 96 Well** | **384 Well** | **Low Volume 384 Well** | **1536 Well** |
| Flat bottom | ■ | ■ | ■ | ■ | ■ | ■ |
| Round bottom | ■ | | | | ■ | ■ |
| V-bottom | ■ | | | | | |
| Easy Wash bottom | ■ | | | | | |

Detailed information about well volume, working volumes, and microplate dimensions for Corning 96, 384, and 1536 well microplates are provided throughout this guide.

### 2 Choose the Corning Microplate Material and Color

Corning uses different polymers for microplates to support various application requirements. Selection of the appropriate polymer material and color can improve assay performance. Additional technical information on key polymers can be found in the appendix at the end of this guide.

**Material Selection Chart**

| | Microplate Format | | | | | |
|---|---|---|---|---|---|---|
| **Microplate Material** | **96 Well** | **96 Well Stripwell** | **Half Area 96 Well** | **384 Well** | **Low Volume 384 Well** | **1536 Well** |
| Clear polystyrene | ■ | ■ | ■ | ■ | | |
| Solid black or white polystyrene | ■ | ■ | ■ | ■ | ■ | ■ |
| Clear bottom black or white polystyrene | ■ | | ■ | ■ | ■ | ■ |
| Polypropylene | ■ | | | ■ | ■ | |
| Solid black or white polypropylene | ■ | | | ■* | | |
| Flexible vinyl (PVC) | ■ | | | | | |
| UV | ■ | | ■ | ■ | | |

*Only available in black polypropylene

Corning® microplates are available in different materials:

- **Clear polystyrene microplates** are used for cell culture and colorimetric (absorbance) assays.
- **Black and white polystyrene microplates** can be used for fluorescent and luminescent assays. Solid black polystyrene microplates are designed to reduce well-to-well crosstalk and background for fluorescent assays. Solid white polystyrene plates are designed to reduce well-to-well crosstalk, enhance luminescent signals and reduce background for luminescent assays. Both black and white microplates are available with clear bottoms for use in cell-based assays and microscopy applications, and allow top or bottom reading capabilities.
- **Polypropylene microplates** are ideal for compound storage or assays that require high resistance to solvents including DMSO and ethanol. The Corning ClearPro™ 96 well microplate is also available and has greater clarity than standard polypropylene for easier visual inspection of samples.
- **Black and white polypropylene microplates** can be used for fluorescent and luminescent assays and reduce nonspecific binding problems observed with polystyrene microplates. The polypropylene material is also highly resistant to many commonly used solvents.
- **Flexible vinyl (PVC) microplates** are economical, nonsterile general assay 96 well microplates. Due to their flexible nature, these microplates are not compatible with automation.
- **UV microplates** allow UV absorbance readings with low background especially at 260 to 280 nm, and are ideal for determining protein or nucleic acid concentration.

## 3 Choose the Corning Surface Treatment

Corning offers polystyrene microplates with a variety of modified surfaces. These surfaces can support binding or covalent immobilization of cells, proteins, nucleic acids, and other biomolecules. Additional information on these surfaces can be found in the Technical Appendix at the end of this guide.

### Surface Treatment Selection Chart

| | Microplate Format | | | | | |
|---|---|---|---|---|---|---|
| **Surface Treatment** | **96 Well** | **96 Well Stripwell™** | **Half Area 96 Well** | **384 Well** | **Low Volume 384 Well** | **1536 Well** |
| *For General Assay* | | | | | | |
| Not Treated (medium binding) | ■ | ■ | ■ | ■ | ■ | ■ |
| High Binding | ■ | ■ | ■ | ■ | ■ | |
| Nonbinding (NBS™) | ■ | | ■ | ■ | ■ | ■ |
| Sulfhydryl (Sulfhydryl-BIND™) Binding | ■ | ■ | | | | |
| Carbohydrate (Carbo-BIND™) Binding | ■ | ■ | | | | |
| Photo-reactive (Universal-BIND™) Binding | ■ | ■ | | | | |
| Amine Binding | | ■ | | | | |
| *For Cell Culture* | | | | | | |
| Tissue Culture (TC) Treated | ■ | ■ | ■ | ■ | ■ | ■ |
| Ultra-Low Attachment Surface | ■ | | | | | |
| Corning® CellBIND® Surface | ■ | | | ■ | | ■ |
| Poly-D-Lysine | ■ | | | ■ | ■ | |

Corning offers various surface treatments for microplates:

- **Not treated (or medium binding) polystyrene surface** is hydrophobic in nature and binds biomolecules through passive interactions. It is suitable primarily for the immobilization of large molecules, such as antibodies, that have large hydrophobic regions that can interact with the surface.
- **High binding surface** is capable of binding medium (>10 kD) and large biomolecules that possess ionic groups and/or hydrophobic regions.
- **Nonbinding surface (NBS)** is a Corning proprietary treatment technology used on polystyrene microplates to create a nonionic hydrophilic surface (polyethylene oxide-like) that minimizes molecular interactions. Ideal for reducing protein and nucleic acid binding at low concentrations, and increasing assay signal to noise.

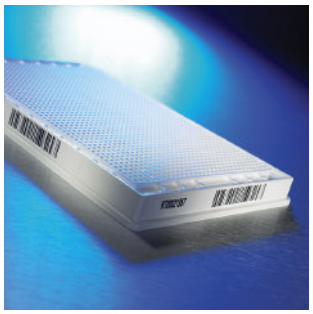
- **Corning® CellBIND® Surface** is a Corning proprietary treatment which provides improved consistency and even cell attachment.
- **Tissue culture treated (TC-Treated) surface** is used for the attachment and growth of anchorage-dependent cells.
- **Ultra-Low Attachment Surface** has a covalently bonded hydrogel designed to minimize cell attachment, protein absorption, enzyme activation and cellular activation. This surface is noncytotoxic, biologically inert and nondegradable.
- **Poly-D-lysine coated surface** can improve attachment of difficult-to-attach cells.
- **Sulfhydryl (Sulfhydryl-BIND™) binding surface** has covalently-linked maleimide groups that covalently couple to sulfhydryl groups via SH moieties. Ideal for assays requiring site-directed orientation of a biomolecule, especially antibodies.
- **Carbohydrate (Carbo-BIND™) binding surface** has hydrazide groups covalently coupled to carbohydrate groups. Ideal for assays requiring site-directed orientation of a biomolecule (oxidized antibodies, carbohydrates, and glycosylated proteins) while maintaining enzymatic or immunological activity.
- **Photo-reactive (Universal-BIND™) surface** covalently immobilizes biomolecules via abstractable hydrogens using UV illumination, resulting in a carbon-carbon bond. Although linkage is nonspecific and does not allow for site-directed orientation of a biomolecule, this surface may be useful for immobilization of double stranded DNA, antigens of unknown structure, and mixtures of biomolecules (e.g., cell lysates).
- **Amine surface** has positively charged amine groups (2 x $10^{13}$ reactive sites/$cm^2$) that can be used for covalent immobilization via bifunctional crosslinkers.

## BAR CODE CUSTOMIZATION

New

### Generic Bar Codes

Corning now offers a line of generic bar coded microplates to better meet the demands of your screening needs (see list of available microplates on back)



Generic Bar Code Microplate

- No lead time: microplates are in stock and ready to ship
- Surface identification: The surface treatment of the microplate is identified in the human readable portion of the bar code:
  - NT = Not Treated
  - TC = Tissue Culture Treated
  - CB = Corning CellBIND® Surface
  - NB = Nonbinding Surface
- Labels applied to all 4 sides of the microplate to ensure usability regardless of scanner location
- Each microplate is specially treated to reduce the impact of static build-up
- Code 128 bar code format ensures compatibility with most bar code scanning and software systems

### Custom Designed Bar Codes

Corning will assist in designing and implementing a bar code label to meet your exact specifications. We can provide bar code label test samples at the front end of a project, to confirm decodability and ensure flawless performance in your end-use process. Our other customization features include:

- Superior print quality and resolution
- Flexible bar code label positioning
- Resistant to most commonly used organic solvents

### Dependable Durability

Bar codes have been quality tested for optimal readability, chemical resistance, and temperature variation.

### Expert Advice

Most Corning microplates are suitable for bar code customization. Contact Corning Life Sciences or your local representative for more information.

# 96 Well Microplates

Corning offers a complete line of 96 well microplates for laboratory miniaturization and automation. These microplates are available for different applications:

- 96 well assay microplates
  - General assays – Not treated, NBS™, covalent binding, high binding, flexible vinyl (PVC), and UV microplates
  - Cell-based assays – Tissue culture treated, Corning® CellBIND® Surface, poly-D-lysine, and Ultra-Low Attachment polystyrene microplates
  - Immunoassays – EIA/RIA polystyrene microplates (medium and high binding)
- 96 well polystyrene Stripwell™ microplates
- 96 well polypropylene storage microplates and cluster tubes

This selection guide does not include 96 well microplates for PCR and genomics. Please refer to the Corning Genomics Selection Guide for information on these products.

For additional microplate information, refer to *Selecting the Best Corning Microplate for Your Application* in the Overview section of this guide (page 3).

## 96 WELL ASSAY MICROPLATES

Corning offers a wide variety of assay microplates. They are organized into five groups:

- 96 Well Clear Polystyrene Microplates
- 96 Well Solid Black and White Polystyrene Microplates
- 96 Well Clear Bottom Black and White Polystyrene Microplates
- 96 Well UV Microplates
- 96 Well Clear Flexible Vinyl (PVC) Microplates

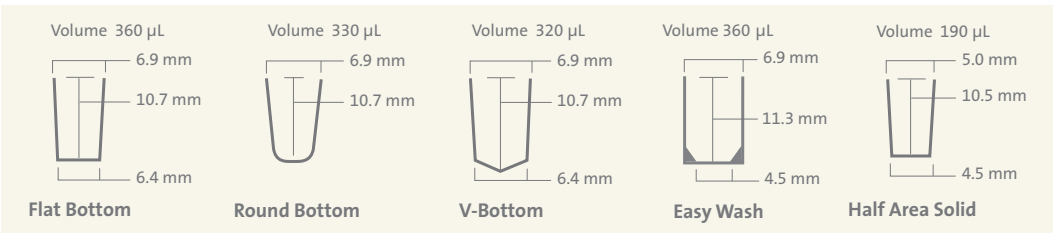
**96 Well Microplates Color Key**

- Round bottom
- V-bottom
- Flat bottom
- Flat bottom Easy Wash
- Flat bottom Half Area
- V-bottom expanded volume
- Conical bottom

Corning 96 well polystyrene microplates are offered in standard volume formats and in lower volume format (called Corning Half Area microplates). Corning 96 well polystyrene microplates have plate dimensions (length x width x height) of 127.76 x 85.48 x 14.22 mm that meet proposed industry standards.

| 96 Well Plate Types | Well Bottom Shape | Total Well Volume (µL) | Recommended Working Volume (µL) |
|---|---|---|---|
| Standard | Flat | 360 | 75 to 200 |
| Standard | Round | 330 | 75 to 200 |
| Standard | V | 320 | 75 to 200 |
| Standard | Easy Wash™ | 360 | 75 to 200 |
| Half Area, solid | Flat | 190 | 25 to 125 |
| Half Area, clear bottom | Flat | 205 | 25 to 125 |

### 96 Well Geometry and Dimensions




Corning tissue culture treated microplates have the same surface treatment used on other Corning culture vessels. In addition to this traditional surface, Corning offers three additional surfaces: Corning CellBIND Surface treatment for improving consistency and even cell attachment, a poly-D-lysine coating for enhancing attachment of difficult-to-attach cell lines, and an Ultra-Low Attachment Surface for minimizing cell attachment.

96 Well Clear Microplates

96 Well EIA/RIA Microplates

***Corning CellBIND Surface for Optimizing Cell-Based Assay Performance***

- Available in 96 and 384 well black clear bottom microplates and 96 well clear solid microplates
- Surface treatment improves consistency and more even cell attachment, and may improve attachment of difficult-to-attach cell lines
- Not a coating, requires no special handling, and is stable at room temperature
- Sterilized by gamma radiation and certified nonpyrogenic

## 96 Well Clear Polystyrene Microplates

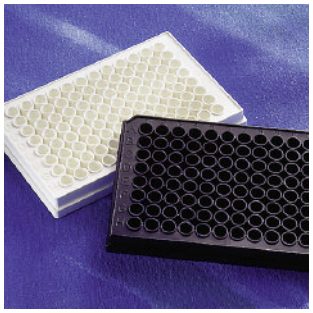
- Cell culture microplates are sterilized by gamma radiation and certified nonpyrogenic
- Lids available where indicated (Information on lids and other microplate accessories can be found beginning on page 21.)

### 96 Well Clear Polystyrene Microplate Ordering Information

| Cat. No. | Plate Format | Well Bottom | Surface Treatment | Sterile | Qty/ Pk | Qty/ Cs |
|---|---|---|---|---|---|---|
| 3360 | Standard | Round | TC-treated | Yes | 25 | 100 |
| 3366 | Standard | Round | High Bind | No | 25 | 100 |
| 3367 | Standard | Round | Not treated | Yes | 1 | 50 |
| 3788 | Standard, with lid | Round | Not treated | Yes | 20 | 100 |
| 3795 | Standard | Round | Not treated | Yes | 25 | 100 |
| 3798 | Standard | Round | Not treated* | No | 25 | 100 |
| 3797 | Standard | Round | Not treated | No | 25 | 100 |
| 3799 | Standard, with lid | Round | TC-treated | Yes | 1 | 50 |
| 3894 | Standard, with lid | V | TC-treated | Yes | 1 | 50 |
| 3896 | Standard | V | Not treated | Yes | 1 | 48 |
| 3897 | Standard | V | Not treated | No | 25 | 100 |
| 3898 | Standard | V | Not treated* | No | 25 | 100 |
| 2503 | Standard | Flat | Universal-BIND™ | No | 1 | 50 |
| 2507 | Standard | Flat | Carbo-BIND™ | No | 1 | 50 |
| 2509 | Standard | Flat | Sulfhydryl-BIND™ | No | 1 | 50 |
| 3300 | Standard, with lid | Flat | Corning® CellBIND® Surface | Yes | 5 | 50 |
| 3361 | Standard, with lid | Flat | High Bind | Yes | 20 | 100 |
| 3370 | Standard, with lid | Flat | Not treated | Yes | 20 | 100 |
| 3474 | Standard, with lid | Flat | Ultra-Low Attachment Surface | Yes | 1 | 24 |
| 3585 | Standard, with lid** | Flat | TC-treated | Yes | 5 | 50 |
| 3590 | Standard | Flat | High Bind | No | 1 | 100 |
| 3591 | Standard | Flat | Not treated | No | 1 | 50 |
| 3595 | Standard, with lid** | Flat | TC-treated | Yes | 1 | 50 |
| 3596 | Standard, with lid | Flat | TC-treated | Yes | 1 | 50 |
| 3598 | Standard, with lid | Flat | TC-treated | Yes | 5 | 100 |
| 3599 | Standard, with lid | Flat | TC-treated | Yes | 1 | 100 |
| 3628 | Standard, with lid | Flat | TC-treated | Yes | 20 | 100 |
| 3641 | Standard | Flat | NBS™ | No | 25 | 100 |
| 3841 | Standard, with lid | Flat | Poly-D-Lysine | Yes*** | 20 | 100 |
| 3997 | Standard, with lid | Flat | TC-treated | Yes | 10 | 50 |
| 9017 | Standard | Flat | Not treated | No | 25 | 100 |
| 9018 | Standard | Flat | High Bind | No | 25 | 100 |
| 3690 | Half Area | Flat | High Bind | No | 25 | 100 |
| 3695 | Half Area | Flat | Not treated | No | 25 | 100 |
| 3696 | Half Area, with lid | Flat | TC-treated | Yes | 1 | 50 |
| 3697 | Half Area, with lid | Flat | TC-treated | Yes | 20 | 100 |
| 3368 | Standard | Easy Wash™ | Not treated | No | 25 | 100 |
| 3369 | Standard | Easy Wash | High Bind | No | 25 | 100 |

*Processed to improve hydrophilicity for hemagglutination and similar assays.
**Special low evaporation lid
***Aseptically manufactured

## 96 Well Solid Black and White Polystyrene Microplates



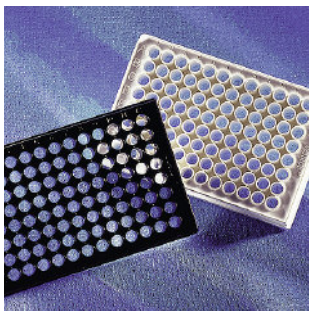
96 Well Black and White Polystyrene Microplates

- Designed to reduce well-to-well crosstalk
- White microplates enhance luminescent signals and have low background luminescence and fluorescence
- Black microplates have low background fluorescence and minimize light scattering

### 96 Well Solid Black and White Polystyrene Microplate Ordering Information

| Cat. No. | Plate Format | Plate Color | Well Bottom | Surface Treatment | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|---|---|---|
| 3605 | Standard | White | Round | NBS | No | 25 | 100 |
| 3789 | Standard | White | Round | Not treated | No | 25 | 100 |
| 3792 | Standard | Black | Round | Not treated | No | 25 | 100 |
| 3362 | Standard | White | Flat | TC-treated | Yes | 25 | 100 |
| 3600 | Standard | White | Flat | NBS™ | No | 25 | 100 |
| 3650 | Standard | Black | Flat | NBS | No | 25 | 100 |
| 3912 | Standard | White | Flat | Not treated | No | 25 | 100 |
| 3915 | Standard | Black | Flat | Not treated | No | 25 | 100 |
| 3916 | Standard, with lid | Black | Flat | TC-treated | Yes | 20 | 100 |
| 3917 | Standard, with lid | White | Flat | TC-treated | Yes | 20 | 100 |
| 3922 | Standard | White | Flat | High Bind | No | 25 | 100 |
| 3925 | Standard | Black | Flat | High Bind | No | 25 | 100 |
| 3990 | Standard | White | Flat | NBS | No | 5 | 25 |
| 3991 | Standard | Black | Flat | NBS | No | 5 | 25 |
| 3642 | Half Area | White | Flat | NBS | No | 25 | 100 |
| 3686 | Half Area | Black | Flat | NBS | No | 25 | 100 |
| 3688 | Half Area, with lid | White | Flat | TC-treated | Yes | 20 | 100 |
| 3693 | Half Area | White | Flat | Not treated | No | 25 | 100 |
| 3694 | Half Area | Black | Flat | Not treated | No | 25 | 100 |
| 3875 | Half Area, with lid | Black | Flat | TC-treated | Yes | 20 | 100 |
| 3992 | Half Area | White | Flat | NBS | No | 5 | 25 |
| 3993 | Half Area | Black | Flat | NBS | No | 5 | 25 |

## 96 Well Clear Bottom Black and White Polystyrene Microplates



96 Well Clear Bottom Black and White Microplates

- Bottoms are 60% thinner than conventional polystyrene microplates, resulting in lower background fluorescence and enabling readings down to 340 nm
- Opaque walls prevent well-to-well crosstalk
- Optically clear flat bottom permits direct microscopic viewing

### 96 Well Clear Bottom Black and White Polystyrene Microplate Ordering Information

| Cat. No. | Plate Format | Plate Color | Well Bottom | Surface Treatment | Sterile | Qty/ Pk | Qty/ Cs |
|---|---|---|---|---|---|---|---|
| 3340 | Standard, with lid | Black | Flat | Corning® CellBIND® Surface | Yes | 5 | 50 |
| 3372 | Standard, with lid | Black | Flat | Poly-D-Lysine | Yes | 10 | 50 |
| 3601 | Standard | Black | Flat | High Bind | No | 25 | 100 |
| 3603 | Standard, with lid | Black | Flat | TC-treated | Yes | 1 | 48 |
| 3604 | Standard | White | Flat | NBS | No | 25 | 100 |
| 3610 | Standard, with lid | White | Flat | TC-treated | Yes | 1 | 48 |
| 3614 | Special Optics | Black | Flat | TC-treated | Yes | 25 | 100 |
| 3615 | Special Optics, with lid | Black | Flat | Not treated | No | 25 | 100 |
| 3631 | Standard | Black | Flat | Not treated | No | 25 | 100 |
| 3632 | Standard | White | Flat | Not treated | No | 25 | 100 |
| 3651 | Standard | Black | Flat | NBS | No | 25 | 100 |
| 3843 | Standard, with lid | White | Flat | Poly-D-Lysine | Yes* | 20 | 100 |
| 3842 | Standard, with lid | Black | Flat | Poly-D-Lysine | Yes* | 20 | 100 |

### 96 Well Clear Bottom Black and White Polystyrene Microplate Ordering Information (Continued)

| Cat. No. | Plate Format | Plate Color | Well Bottom | Surface Treatment | Sterile | Qty/ Pk | Qty/ Cs |
|---|---|---|---|---|---|---|---|
| 3903 | Standard, with lid | White | Flat | TC-treated | Yes | 20 | 100 |
| 3904 | Standard, with lid | Black | Flat | TC-treated | Yes | 20 | 100 |
| 3995 | Standard | White | Flat | NBS™ | No | 5 | 25 |
| 3998 | Standard, with lid | Black | Flat | Poly-D-Lysine | Yes | 5 | 25 |
| 3721 | Half Area | Black | Flat | TC-treated | Yes | 5 | 25 |
| 3880 | Half Area | Black | Flat | Not treated | No | 25 | 100 |
| 3881 | Half Area | Black | Flat | NBS | No | 25 | 100 |
| 3882 | Half Area, with lid | Black | Flat | TC-treated | Yes | 20 | 100 |
| 3883 | Half Area | White | Flat | Not treated | No | 25 | 100 |
| 3884 | Half Area | White | Flat | NBS | No | 25 | 100 |
| 3885 | Half Area, with lid | White | Flat | TC-treated | Yes | 20 | 100 |
| 3886 | Half Area | White | Flat | TC-treated | Yes | 25 | 100 |
| 3887 | Half Area | Black | Flat | TC-treated | Yes | 25 | 100 |
| 3994 | Half Area | White | Flat | NBS | No | 5 | 25 |

*Aseptically manufactured

***Tip for Improving Optical Performance in Fluorescent Assays***

Corning® Special Optics 96 Well Microplates have black walls with ultra thin, clear bottoms for sharp, clear images and minimal background in fluorescent assays.

96 Well UV Microplate – Certified DNase- and RNase-free

## 96 Well UV Microplates

The Corning® 96 well UV microplate has a UV-transparent well bottom and is ideal for determining protein and/or nucleic acid concentrations.

- Certified DNase- and RNase-free
- UV-transparent bottom is molded directly to an acrylic base for greater strength and maximum leak resistance
- Total well volume: flat bottom – 360 µL; recommended working volume of 75 to 200 µL
- UV half area microplate has well volume of 205 µL; working volume of 25 to 125 µL
- Allows UV absorbance readings with low background, especially at 260 to 280 nm
- Lids are available separately. (Information on lids and other microplate accessories can be found beginning on page 21.)

### 96 Well UV Microplate Ordering Information

| Cat. No. | Plate Format | Well Bottom | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|---|
| 3635 | Standard | Flat | No | 25 | 50 |
| 3679 | Half Area | Flat | No | 25 | 50 |

***Tip for Reducing Reagent Use***

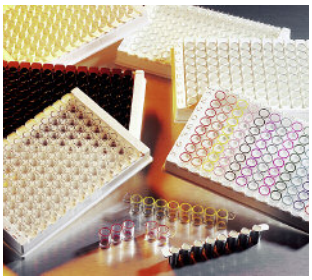
Corning 96 Well Half Area Microplates can save on valuable reagents by reducing the amount of reagent needed per well, while still retaining the ability to be read in standard microplate readers. These microplates have a recommended working volume of 25 µL to 125 µL and are available untreated or with tissue culture, High Bind, or NBS treatment.

## 96 Well Clear Flexible Vinyl (PVC) Microplates

- Untreated PVC microplates are economical microplates for solution-based assays, serial dilutions, and general storage applications.
- Well volume of 250 µL (260 µL for V-bottom); working well volume of 50 to 150 µL
- Lids are not available.

### 96 Well Clear Flexible PVC Microplate Ordering Information

| Cat. No. | Plate Format | Well Bottom | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|---|
| 2797 | Standard | Round | No | 25 | 100 |
| 2897 | Standard | V | No | 25 | 100 |
| 2595 | Standard | Flat | No | 25 | 100 |



Stripwell Microplates


Standard vs. Low Volume

### *Stripwell Low Volume Microplates*

**Big Cost Savings!**

- Save 70% or more on antibody costs
- Save 50% or more on reagent costs

**Features**

- Total well volume: 190 µL
- Recommended working volume: 75 to 125 µL
- Same height/path length as a standard strip
- Standard 96 well center-to-center spacing

**Custom Stripwell Microplate Colors**

White, Dark blue, Light green, Light blue, Teal, Dark green, Yellow, Purple, Red, Orange, Pink, Black, Brown, Grey

## 96 WELL POLYSTYRENE STRIPWELL™ MICROPLATES

Corning® Stripwell microplates are designed for *in vitro* diagnostic assays. The flat bottom strips are designed to easily break apart and are pre-assembled in an "egg-crate" style strip holder that allows each individual well to be positioned back into the microplate once broken.

- Stripwell microplates have 96 well flat bottom polystyrene format
- Low volume and standard Stripwell microplates have well volumes of 190 µL and 360 µL, respectively
- 1 x 8 strips are designed to fit only one way into the strip holder, eliminating the chance of misorientation
- Accessories can be found beginning on page 21.

### Stripwell Microplates Ordering Information

**Stripwell Low Volume Microplates**

| Cat. No. | Color | Binding Property | Qty/Pk | Qty/Cs |
|---|---|---|---|---|
| 2480 | Clear | Medium | 25 | 100 |
| 2481 | Clear | High | 25 | 100 |
| 2482 | Black | Medium | 25 | 100 |
| 2483 | Black | High | 25 | 100 |
| 2484 | White | Medium | 25 | 100 |
| 2485 | White | High | 25 | 100 |

**Standard Stripwell Microplates**

| Cat. No. | Color | Binding Property | Qty/Pk | Qty/Cs |
|---|---|---|---|---|
| 2592* | Clear | High | 25 | 100 |
| 2593* | Clear | Medium | 25 | 100 |
| 2580** | Clear | High | 200 | 800 |
| 9102*** | Clear | TC-treated, sterile | 1 | 50 |
| 3913 | White | Medium | 25 | 100 |
| 3923 | White | High | 25 | 100 |
| 3914 | Black | Medium | 25 | 100 |
| 3924 | Black | High | 25 | 100 |

*Product has a certified surface chemistry
**Individual 1 x 8 Strips without frame, bulk packed
***Microplates individually packaged with lid

**Surface Modified Stripwell Microplates, Clear**

| Cat. No. | Description | Surface Chemistry | Well Volume | Qty/Pk | Qty/Cs |
|---|---|---|---|---|---|
| 2388 | Amine | Amine | 360 µL | 1 | 50 |
| 2504 | Universal-BIND™ Surface | Universal | 360 µL | 1 | 50 |
| 2506 | DNA-BIND™ Surface | N-oxysuccinimide | 360 µL | 1 | 50 |
| 2508 | Carbo-BIND™ Surface | Hydrazide | 360 µL | 1 | 50 |
| 2510 | Sulfhydryl-BIND™ Surface | Maleimide | 360 µL | 1 | 50 |

**Strip Accessories**

| Cat. No. | Description | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|
| 2572 | Strip holder "egg crate" | No | 5 | 20 |
| 2578 | 96 well strip ejector | No | 5 | 5 |

### Color Coding

Corning offers customers the ability to color code their Stripwell microplates. Currently there are 14 colors available from which to choose on both our certified high and medium binding Stripwell microplates. In addition to the clear strip, two other colors can be applied to the same microplate. Color-coded Stripwell microplates are made to order and minimum order requirements do apply. If interested, please contact your local Corning representative.

# 96 WELL POLYPROPYLENE STORAGE MICROPLATES AND CLUSTER TUBES

## 96 Well Polypropylene Microplates and Storage Blocks

Corning polypropylene microplates offer both small volume and large volume (blocks) well formats to meet assay and storage requirements.

- Flat, round or V-shaped well bottom
- Feature uniform skirt heights for greater robotic gripping surface
- Solvent resistant polypropylene provides compatibility with many common organic solvents (e.g., DMSO, ethanol, methanol)
- Certified DNase- and RNase-free
- Available sterile or nonsterile
- Refer to the Microplate Accessories section for information about microplate accessory products including sealing tapes and mats.

### 96 Well Polypropylene Microplate Dimensions and Well Volumes

| Well Shape | Total Well Volume (µL) | Well Depth (mm) | Well Diameter (mm) | Plate Dimensions (L x W x H) (mm) |
|---|---|---|---|---|
| 96 well flat bottom | 360 | 10.67 | 6.86 | 127.76 x 85.48 x 14.22 |
| 96 well round bottom | 360 | 11.3 | 6.86 | 127.76 x 85.48 x 14.22 |
| 96 well V-bottom | 320 | 11.13 | 6.86 | 127.76 x 85.48 x 14.22 |
| 96 well V-bottom, expanded volume | 450 | 12.43 | 8.50 | 127.76 x 85.48 x 14.35 |
| 96 well 0.5 mL block | 500 | 25.3 | 6.86 | 127.76 x 85.48 x 27.18 |
| 96 well 1 mL block | 1000 | 39.9 | 6.86 | 127.76 x 85.09 x 41.66 |
| 96 well 2 mL block | 2000 | 42.04 | 8.13 (width) | 128.27 x 85.85 x 43.94 |

### 96 Well Polypropylene Microplate Ordering Information

| Cat. No. | Plate Format | Color | Well Bottom | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|---|---|
| 3355 | Standard | White | Round | No | 25 | 100 |
| 3356 | Standard | Black | Round | No | 25 | 100 |
| 3359 | Standard* | Clear | Round | Yes | 25 | 100 |
| 3365 | Standard* | Clear | Round | No | 25 | 100 |
| 3364 | Standard | Clear | Flat | No | 25 | 100 |
| 3343 | Expanded volume | Clear | V | No | 10 | 50 |
| 3344 | Expanded volume | Clear | V | Yes | 10 | 50 |
| 3357 | Standard | Clear | V | Yes | 25 | 100 |
| 3363 | Standard | Clear | V | No | 25 | 100 |

*Upgraded features include: superior clear polypropylene, lowered perimeter ridge for improved sealing, and added rigidity and dimensional stability for improved automated handling.

96 Well Polypropylene Storage Blocks with Storage Mat

### 96 Well Polypropylene Storage Block Ordering Information

| Cat. No. | Plate Format | Well Volume | Well Bottom | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|---|---|
| 3958 | 1 mL round well block | 1 mL | Round | Yes | 5 | 25 |
| 3959 | 1 mL round well block | 1 mL | Round | No | 5 | 100 |
| 3956 | 0.5 mL round well block | 0.5 mL | V | Yes | 10 | 50 |
| 3957 | 0.5 mL round well block | 0.5 mL | V | No | 100 | 100 |
| 3960 | 2 mL square well block | 2 mL | V | Yes | 5 | 25 |
| 3961 | 2 mL square well block | 2 mL | V | No | 5 | 100 |

Cluster Tube Systems

## 96 Well Cluster Tubes

- Composed of 96 polypropylene tubes in a standard microplate format
- Feature 1.2 mL tubes that are available individually or in strips of eight tubes
- Polyethylene tube caps are available in 8-cap strips

### 96 Well Cluster Tube Ordering Information

| Cat. No. | Format | Sterile | Rack | Qty/Pk | Qty/Cs |
|---|---|---|---|---|---|
| 4401 | Individual | No | No | 960/Bag | 960 |
| 4408 | 8-tube strip | No | No | 120/Bag | 120 |
| 4410 | Individual | No | Yes | 96/Rack | 960 |
| 4411 | Individual | Yes | Yes | 96/Rack | 960 |
| 4412 | 8-tube strip | No | Yes | 12/Rack | 120 |
| 4413 | 8-tube strip | Yes | Yes | 12/Rack | 120 |
| 4418 | 8-cap strip | Yes | No | 12/Bag | 120 |

# 384 Well Microplates

Corning offers a variety of 384 well microplates for high throughput assays and storage. Microplates are grouped by application:

- 384 well assay microplates
  - General assays – Not treated, NBS™, high binding, and UV microplates
  - Cell-based assays – Tissue culture treated, Corning® CellBIND® Surface, and poly-D-lysine coated polystyrene microplates
- 384 well polypropylene storage microplates

This selection guide does not include 384 well microplates for PCR and genomics. Please refer to the Corning Genomics Selection Guide or web site (**www.corning.com/lifesciences**) for further information on these products. For additional microplate information, refer to *Selecting the Best Corning Microplate for Your Application* in the Overview section of this guide (page 3).

## 384 WELL ASSAY MICROPLATES

Corning offers a wide variety of assay microplates. They are organized into five groups:

- 384 Well Clear Polystyrene Microplates
- 384 Well Solid Black and White Polystyrene Microplates
- 384 Well Clear Bottom Black and White Polystyrene Microplates
- 384 Well UV Microplates

For assays performed in reduced volumes, Corning 384 well low volume polystyrene microplates are available in solid round bottom and in black clear bottom formats.

***Low Volume 384 Well Solid Round Bottom Microplates***

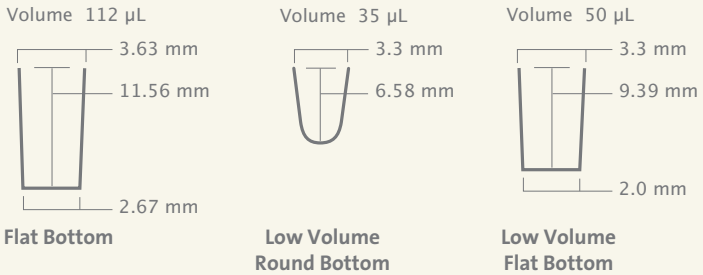
Unique well design for optimal assay performance

- Raised well bottom for higher sensitivity
- Raised rim for decreased wicking and contamination
- Round bottom for better Z factor and minimized trapped air
- Conical well molded in the shape of a light cone for efficiency

| 384 Well Microplate Types | Well Bottom Shape | Total Well Volume (µL) | Recommended Working Volume (µL) |
|---|---|---|---|
| Standard | Flat | 112 | 20 to 80 |
| Low Volume, solid | Round | 35 | 5 to 20 |
| Low Volume, clear bottom | Flat | 50 | 5 to 40 |

- Corning 384 well polystyrene microplates have microplate dimensions (length x width x height) of 127.76 x 85.48 x 14.22 mm that meet proposed industry standards

### 384 Well Geometry and Dimensions




Corning 384 well microplates for cell culture include tissue culture treated, Corning CellBIND Surface, and poly-D-lysine coated microplates. The tissue culture treated microplates have the same surface treatment used on other Corning cell culture vessels while the poly-D-lysine treatment improves attachment of anchorage-dependent cells. The new Corning CellBIND Surface treatment can provide improved consistency and even cell attachment.

384 Well Clear Microplates

**384 Well Microplates Color Key**

- Round bottom
- V-Bottom
- Flat bottom
- Conical bottom

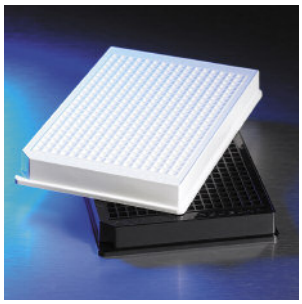
## 384 Well Clear Polystyrene Microplates

- Total well volume of 112 µL; working well volume of 20 to 80 µL
- Cell culture microplates are sterilized by gamma radiation and certified nonpyrogenic
- The 384 well Universal Optics NBS™ microplate is manufactured using an advanced polymer with high clarity and improved chemical resistant properties.
- Lids available as indicated. (Information on lids and other microplate accessories can be found beginning on page 21.)

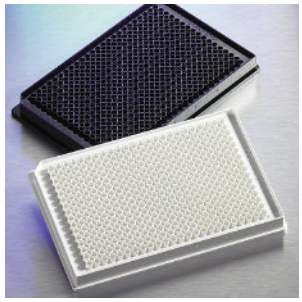
### 384 Well Clear Polystyrene Microplate Ordering Information

| Cat. No. | Plate Format | Well Bottom | Surface Treatment | Sterile | Qty/ Pk | Qty/ Qty/Cs |
|---|---|---|---|---|---|---|
| 3640 | Standard | Flat | NBS | No | 25 | 100 |
| 3640BC | Standard, with bar code labels | Flat | NBS | No | 25 | 100 |
| 3844 | Clear, with lid | Flat | Poly-D-Lysine | Yes* | 20 | 100 |
| 3680 | Standard, with lid | Flat | Not treated | Yes | 20 | 100 |
| 3700 | Standard | Flat | High Bind | No | 25 | 100 |
| 3701 | Clear, with lid | Flat | TC-treated | Yes | 20 | 100 |
| 3702 | Standard | Flat | Not treated | No | 25 | 100 |
| 3702BC | Standard, with bar code labels | Flat | Not treated | No | 25 | 100 |
| 3723 | Universal Optics (standard) | Flat | NBS | No | 25 | 100 |

*Aseptically manufactured.



384 Well Solid Low Flange Microplates



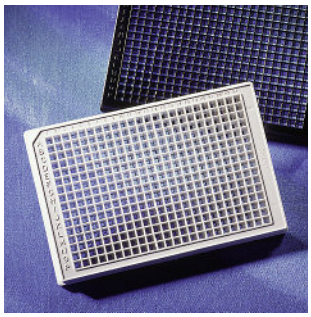
384 Well Low Volume Solid Microplates

## 384 Well Solid Black and White Polystyrene Microplates

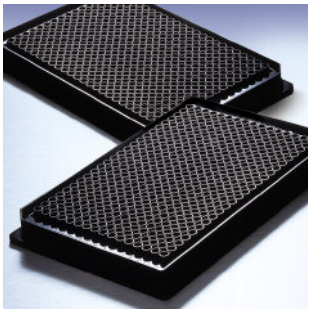
- Designed to reduce well-to-well crosstalk during fluorescent and luminescent assays

### 384 Well Solid Black and White Polystyrene Microplate Ordering Information

| Cat. No. | Plate Format | Plate Color | Well Bottom | Surface Treatment | Sterile | Qty/ Pk | Qty/ Cs |
|---|---|---|---|---|---|---|---|
| 3673 | Low Volume | White | Round | NBS | No | 25 | 100 |
| 3674 | Low Volume | White | Round | Not treated | No | 25 | 100 |
| 3676 | Low Volume | Black | Round | NBS | No | 25 | 100 |
| 3677 | Low Volume | Black | Round | Not treated | No | 25 | 100 |
| 3678 | Low Volume | Black | Round | High Bind | No | 25 | 100 |
| 3570 | Solid white, with lid | White | Flat | TC-treated | Yes | 10 | 50 |
| 3571 | Solid black, with lid | Black | Flat | TC-treated | Yes | 10 | 50 |
| 3572 | Standard, low flange | White | Flat | Not treated | No | 10 | 50 |
| 3573 | Standard, low flange | Black | Flat | Not treated | No | 10 | 50 |
| 3574 | Standard, low flange | White | Flat | NBS | No | 10 | 50 |
| 3574BC | Standard, low flange, with bar code labels | White | Flat | NBS | No | 10 | 50 |
| 3575 | Standard, low flange | Black | Flat | NBS | No | 10 | 50 |
| 3575BC | Standard, low flange, with bar code labels | Black | Flat | NBS | No | 10 | 50 |
| 3820 | Low Volume | Black | Flat | NBS | No | 10 | 50 |
| 3821 | Low Volume | Black | Flat | Not treated | No | 10 | 50 |
| 3821BC | Low Volume, with bar code labels | Black | Flat | Not treated | No | 10 | 50 |
| 3822 | Low Volume, with lid | Black | Flat | TC-treated | Yes | 10 | 50 |
| 3824 | Low Volume | White | Flat | NBS | No | 10 | 50 |
| 3824BC | Low Volume, with bar code labels | White | Flat | NBS | No | 10 | 50 |
| 3826 | Low Volume, with lid | White | Flat | TC-treated | Yes | 10 | 50 |
| 3826BC | Low Volume, with lid and bar code labels | White | Flat | TC-treated | Yes | 10 | 50 |



384 Well Clear Bottom Black and White Microplates



384 Well Low Volume Black Clear Bottom Microplates

## 384 Well Clear Bottom Black and White Polystyrene Microplates

- Suited for fluorescent and luminescent assays using either top or bottom detection microplate readers

### 384 Well Clear Bottom Black and White Microplate Ordering Information

| Cat. No. | Plate Format | Plate Color | Well Bottom | Surface Treatment | Sterile | Qty/ Pk | Qty/ Cs |
|---|---|---|---|---|---|---|---|
| 3540 | Low Volume | Black | Flat | Not treated | No | 10 | 50 |
| 3542 | Low Volume, clear bottom, with lid | Black | Flat | TC-treated | Yes | 10 | 50 |
| 3544 | Low Volume | Black | Flat | NBS | No | 10 | 50 |
| 3643 | Low Volume | Black | Flat | Poly-D-Lysine | Yes | 10 | 50 |
| 3653 | Standard | White | Flat | NBS | No | 25 | 100 |
| 3846 | Clear bottom, with lid | White | Flat | Poly-D-Lysine | Yes* | 20 | 100 |
| 3845 | Clear bottom, with lid | Black, | Flat | Poly-D-Lysine | Yes* | 20 | 100 |
| 3655 | Standard | Black | Flat | NBS | No | 25 | 100 |
| 3683 | Clear bottom, with lid | Black | Flat | CellBIND® Corning® Surface | Yes | 10 | 50 |
| 3706 | Standard | White | Flat | Not treated | No | 25 | 100 |
| 3707 | Clear bottom, with lid | White | Flat | TC-treated | Yes | 20 | 100 |
| 3711 | Standard | Black | Flat | Not treated | No | 25 | 100 |
| 3712 | Clear bottom, with lid | Black | Flat | TC-treated | Yes | 20 | 100 |
| 3985 | Optical Imaging, with clear bottom and lid | Black | Flat | TC-treated | Yes | 20 | 100 |
| 3985BC | Optical Imaging, with clear bottom, lid and bar code labels | Black | Flat | TC-treated | Yes | 20 | 100 |

*Aseptically manufactured

## 384 Well UV Microplate

- Offers certified performance at 260 to 280 nm
- Provides consistently low background and well to well uniformity
- Performance approaches that of quartz cuvettes. Certified DNase- and RNase-free

### 384 Well UV Microplate Ordering Information

| Cat. No. | Plate Format | Well Bottom | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|---|
| 3675 | Standard | Flat | No | 5 | 25 |

# 384 WELL POLYPROPYLENE STORAGE MICROPLATES

## 384 Well Polypropylene Storage Microplates

384 Well Polypropylene Storage Microplates

Corning polypropylene microplates offer both small volume and large volume (blocks) well formats to meet assay and storage requirements.

### 384 Well Polypropylene Microplate Dimensions and Well volumes

| Well Shape | Total Well Volume (µL) | Well Depth (mm) | Well Diameter (mm) | Plate Dimensions (L x W x H) (mm) |
|---|---|---|---|---|
| Low Volume, low profile | 20 | 6.30 | 3.30 | 127.76 x 85.48 x 10.00 |
| Round bottom | 95 | 11.56 | 3.63 | 127.76 x 85.48 x 14.22 |
| Round bottom block | 180 | 25.11 | 3.63 | 127.76 x 85.48 x 27.81 |
| V-bottom block | 240 | 22.31 | 3.30* | 127.76 x 85.48 x 24.73 |

*Width of square well.

- Resistant to many common organic solvents (e.g., DMSO, ethanol, methanol)
- Black polypropylene microplate (Cat. No. 3658) is ideal for fluorescent assays requiring solvent resistance
- Certified DNase- and RNase-free
- Refer to the Microplate Accessories section for information about microplate accessory products including sealing tapes and mats.

### 384 Well Polypropylene Microplate Ordering Information

| Cat. No. | Plate Format | Well Bottom | Well Volume (µL) | Sterile | Qty/ Pk | Qty/ Cs |
|---|---|---|---|---|---|---|
| 3656 | Standard, clear | Round | 95 | Yes | 25 | 100 |
| 3657 | Standard, clear | Round | 95 | No | 25 | 100 |
| 3658 | Standard, black | Round | 95 | No | 25 | 100 |
| 3672 | Low Volume, low profile, clear | Conical | 20 | No | 10 | 50 |

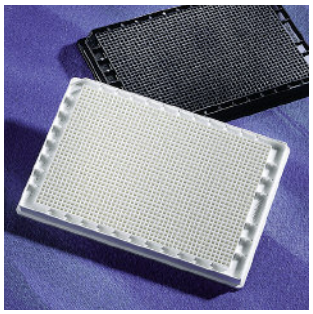
### 384 Well Polypropylene Storage Block Ordering Information

| Cat. No. | Plate Format | Well Bottom | Well Volume (µL) | Sterile | Qty/ Pk | Qty/ Cs |
|---|---|---|---|---|---|---|
| 3964 | 384 well block, clear | Round | 180 | Yes | 5 | 25 |
| 3965 | 384 well block, clear | Round | 180 | No | 5 | 100 |
| 3342 | 384 well block, clear | V | 240 | Yes | 5 | 50 |
| 3347 | 384 well block, clear | V | 240 | No | 5 | 50 |

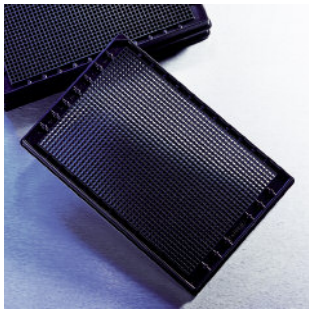
# 1536 Well Microplates

Corning® 1536 well microplates are our highest density microplates available for high throughput screening. The microplates conform to standard microplate footprint and dimensions. These microplates are offered in solid black and white polystyrene microplates, with round or flat bottoms, and in black clear bottom formats.

Corning also offers a ultra-thin 1536 well microplate with a total well volume of 2 µL. This uniquely designed microplate represents leading edge technology in assay miniaturization, with the length and width dimensions and microplate footprint meeting industry standards.



1536 Well Solid Round Bottom Microplates



1536 Well Black Clear Bottom Microplates

**1536 Well Microplates Color Key**

- Round bottom
- Flat bottom

## 1536 Well Standard Polystyrene Microplates

- Total well volume of 10 µL for round well microplates and 12.8 µL for flat bottom microplates
- Recommended working volume of up to 8 µL
- Round well bottoms for reduced air entrapment and improved CVs and Z factor
- Raised well bottoms for higher sensitivity
- Flood reservoir on four sides to reduce instrument contamination
- Lids are available separately. Corning lid Cat. No. 3098 is compatible with these microplates. (Information on lids and other microplate accessories can be found beginning on page 21.)

### 1536 Well Polystyrene Microplate Ordering Information

| Cat. No. | Plate Format | Plate Color | Well Bottom | Surface Treatment | Sterile | Qty/ Pk | Qty/ /Cs |
|---|---|---|---|---|---|---|---|
| 3936 | Standard | Black | Round | Not treated | No | 10 | 50 |
| 3937 | Standard | White | Round | Not treated | No | 10 | 50 |
| 3724 | Standard | Black | Flat | Not treated | No | 10 | 50 |
| 3724BC | Standard, with bar code labels | Black | Flat | Not treated | No | 10 | 50 |
| 3725 | Standard | White | Flat | Not treated | No | 10 | 50 |
| 3725BC | Standard, with bar code labels | White | Flat | Not treated | No | 10 | 50 |
| 3726 | Standard, with lid | Black | Flat | TC-treated | Yes | 10 | 50 |
| 3726BC | Standard, with lid and bar code labels | Black | Flat | TC-treated | Yes | 10 | 50 |
| 3727 | Standard, with lid | White | Flat | TC-treated | Yes | 10 | 50 |
| 3727BC | Standard, with lid and bar code labels | White | Flat | TC-treated | Yes | 10 | 50 |
| 3728 | Standard | Black | Flat | NBS™ Surface | No | 10 | 50 |
| 3728BC | Standard, with lid and bar code labels | Black | Flat | NBS Surface | No | 10 | 50 |
| 3729 | Standard | White | Flat | NBS Surface | No | 10 | 50 |
| 3729BC | Standard, with bar code labels | White | Flat | NBS Surface | No | 10 | 50 |
| 3731 | Standard | White | Flat | Corning CellBIND® Surface | Yes | 10 | 50 |
| 3731BC | Standard, with bar code labels | White | Flat | Corning CellBIND Surface | Yes | 10 | 50 |
| 7246 | High base, solid, without logo or lettering | Black | Flat | Not treated | No | 10 | 50 |
| 7247 | High base, solid, without logo or lettering | White | Flat | Not treated | No | 10 | 50 |
| 7248 | High base, solid, without logo or lettering | Black | Flat | TC-treated | Yes | 10 | 50 |
| 7249 | High base, solid, without logo or lettering | White | Flat | TC-treated | Yes | 10 | 50 |
| 3891 | Clear bottom | Black | Flat | Not treated | No | 10 | 50 |

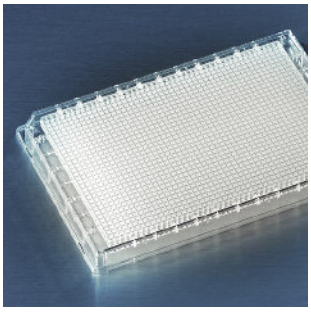
*Continued next page*

### 1536 Well Polystyrene Microplate Ordering Information (Continued)

| Cat. No. | Plate Format | Plate Color | Well Bottom | Surface Treatment | Sterile | Qty/ Pk | Qty/ /Cs |
|---|---|---|---|---|---|---|---|
| 3891BC | Clear bottom, with bar code labels | Black | Flat | Not treated | No | 10 | 50 |
| 3893 | Clear bottom, with lid | Black | Flat | TC-treated | Yes | 10 | 50 |
| 3893BC | Clear bottom, with lid and bar code labels | Black | Flat | TC-treated | Yes | 10 | 50 |
| 3895 | Clear bottom | Black | Flat | NBS Surface | No | 10 | 50 |

### 1536 Well Low Base Polystyrene Microplate Ordering Information

| Cat. No. | Plate Format | Plate Color | Well Bottom | Surface Treatment | Sterile | Qty/ Pk | Qty/ /Cs |
|---|---|---|---|---|---|---|---|
| 3835 | Low base, clear bottom, without logo or lettering | Black | Flat | Not treated | No | 20 | 100 |
| 3836 | Low base, clear bottom, without logo or lettering | Black | Flat | TC-treated | Yes | 20 | 100 |
| 3833 | Low base, clear bottom, without logo or lettering | Black | Flat | Corning® CellBIND® Surface | Yes | 20 | 100 |
| 3831 | Clear bottom | Black | Flat | Not treated | No | 10 | 50 |
| 3838 | Clear bottom | Black | Flat | TC-treated | Yes | 10 | 50 |
| 3838BC | Low base, clear bottom with lid and bar code labels | Black | Flat | TC-treated | Yes | 10 | 50 |
| 3832 | Clear bottom | Black | Flat | Corning CellBIND Surface | Yes | 10 | 50 |
| 3832BC | Low base, clear bottom with lid and bar code labels | Black | Flat | Corning CellBIND Surface | Yes | 10 | 50 |



1536 Well Echo Microplate

## 1536 Well Echo™ Qualified Microplate

- Corning-Labcyte joint development delivers optimal acoustic performance on the Labcyte Echo 550 Compound Reformatter
- Plates lot tested and certified to meet performance specifications
- Enhanced flatness provides low intra- and inter-plate CVs
- Low flange base is designed for bar code customization and robotic handling

### Corning 1536 Well Echo Qualified COC Microplate Ordering Information

| Cat No. | Description | Well Bottom | Surface | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|---|---|
| 3730 | 1536 Well Clear COC | Flat | Not treated | No | 10 | 50 |

COC = Cyclic olefin copolymer

# Protein Crystallization Microplates

96 Well Crystal*EX* Microplates

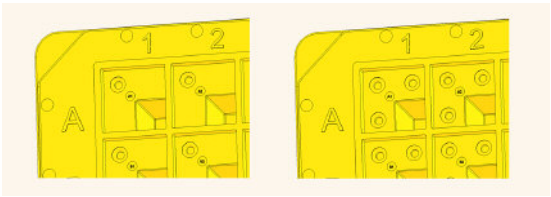
- Corning® 96 and 384 well crystallization microplates are optimized for high-throughput protein crystal growth and screening
- Designed for sitting drop applications
- Meet 96 and 384 well microplate standards for automation

## Next Generation Crystal*EX*™ Microplates for 96 Well High-Throughput Sitting Drop Protein Crystallization

- Conforms to ANSI/SBS specifications for full compatibility in automated crystal screening
- Multiple formats and versatility for custom options to maximize crystal formation, identification and analysis, and harvesting
  - Choose from four unique protein well shapes
  - Options include 1 or 3 protein wells per reservoir well
- Cyclic olefin copolymer offers strong chemical compatibility and good optical clarity
- Reservoir numbers are embossed on each individual well for easy identification

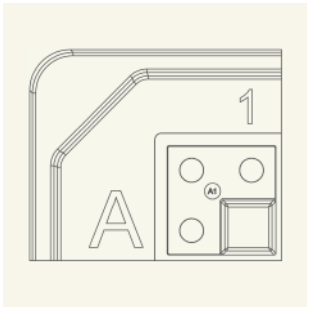
## Next Generation Crystal*EX* Microplate Designs

One reservoir well is flanked by either one or three protein wells, with ANSI/SBS-standard spacing between the centers of adjacent well clusters.




1 Protein Well
1 Reservoir

3 Protein Wells
1 Reservoir




Alphanumeric markers in each well cluster for easy identification under the microscope.

Four different protein well shapes are available:

Round Bottom

Conical Flat Bottom

Flat Bottom

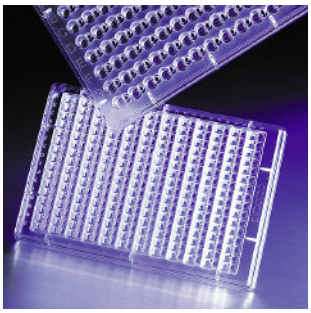
1 µL Conical Flat – Crystal Cup*

*The crystal cup facilitates collection and centering of the protein crystals after incubation.

### Corning Next Generation Crystal*EX* Microplates Ordering Information

| Cat. No. | Protein Well Size | Protein Well Shape | No. of Protein Wells | Treated | Qty/ Pk | Qty/ Cs |
|---|---|---|---|---|---|---|
| 3556 | 4 µL | Round | 1 | No | 10 | 50 |
| 3551 | 4 µL | Conical flat | 1 | Yes* | 10 | 50 |
| 3552 | 2 µL | Round | 3 | No | 10 | 50 |
| 3553 | 2 µL | Conical flat | 3 | No | 10 | 50 |
| 3550 | 1 µL | Conical flat – crystal cup | 3 | No | 10 | 50 |

*Surface processed for hydrophilicity.



96 and 384 Well Protein Crystallization Microplates

## 96 Well Crystal*EX*™ Crystallization Microplates

- Features 96 large reservoir (reagent) wells and 96 corresponding protein wells
- Conical bottom protein wells allow for improved centering of the protein drop
- Compatible with manual pipettors and automation
- Novel merged well design provides efficient vapor space for protein crystallization

## 384 Well Crystal*EX* Crystallization Microplates

- Meets industry standards for 384 well microplate footprint and well locations
  - Ideal for fully automated crystal screening
- Features 192 reservoir wells and 192 corresponding protein wells
- Flat bottom protein wells are optimized for imaging of crystals
- Reservoir and protein wells are positioned to be compatible with multi-head dispensing equipment (up to 96 well heads)

**96 and 384 Well Crystal*EX* Crystallization Microplate Ordering Information**

| Cat. No. | Plate Format | Well Bottom | Reservoir Well Volume (µL) | Protein Well Volume (µL) | Sterile | Qty/ Pk | Qty/ Cs |
|---|---|---|---|---|---|---|---|
| 3773 | 96 well | Conical | 210 | 10 | No | 10 | 50 |
| 3785* | 96 well, treated | Conical, flat | 210 | 7 | No | 10 | 50 |
| 3775 | 384 well | Flat | 100 | 3.4 | No | 10 | 50 |

*Surface processed for hydrophilicity

96 Well Crystallization Microplate with Universal Optical Sealing Tape

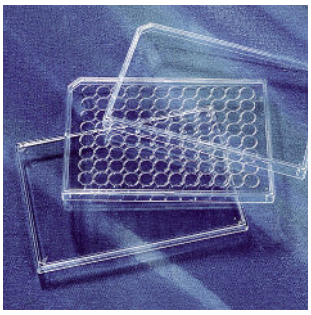
## Universal Optical Sealing Tape for Next Generation Crystal*EX* and Crystal*EX* Microplates

- High optical quality, pressure-sensitive tape ensures tight sealing to minimize evaporation
- Ideal for microscopic observation of crystals
- Suitable for use between -70°C and 100°C
- Compatible with commonly used aqueous solutions and organic solvents

**Accessory for Next Generation Crystal*EX* and Crystal*EX* Microplates**

| Cat. No. | Description | Qty/Pk | Qty/Cs |
|---|---|---|---|
| 6575 | Universal Optical sealing tape | 100 | 100 |

# Microplate Accessories



Lids

***Optimizing Sealing Conditions on Corning Polypropylene Microplates***

Corning offers an application note (Corning Literature No. ALSP-AN-011) describing effective sealing with the ABgene® ALPS-100 automated microplate sealer.

Corning Storage Mat Applicator

## Lids

- All lids are made of rigid polystyrene except where indicated
- All lids have a corner notch on the A1 corner (except where indicated) to correspond to the corner notches found on all Corning® microplates
- The Universal Lid without a corner notch (Cat. No. 3098) does not need to be oriented in any particular direction to be placed on Corning microplates. The lid also has a shorter skirt than standard lids
- The black Universal Lid (Cat. No. 3935) is suitable for fluorescent and other light-sensitive assays
- The DMSO-resistant cyclic olefin lid (Cat. No. 3085) is tinted amber in color for light-sensitive assays and is 100% DMSO-resistant

### Microplate Lid Ordering Information

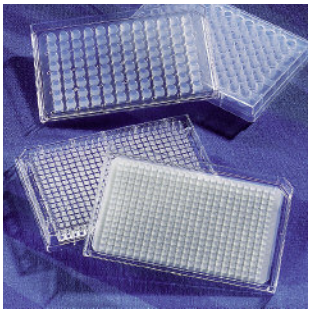
| Cat. No. | Description | Plate Compatibility | Sterile | Qty/ Pk | Qty/ Cs |
|---|---|---|---|---|---|
| 3930 | Low evaporation lid with corner notch and condensation rings | 96 well microplates only (not 2 mL block) | Yes | 1 | 100 |
| 3931 | Low evaporation lid with corner notch and condensation rings | 96 well microplates only (not 2 mL block) | Yes | 25 | 50 |
| 3098 | Universal lid without corner notch | All microplates | Yes | 25 | 100 |
| 3099 | Universal lid with corner notch | All microplates | Yes | 25 | 50 |
| 3935 | Black universal lid with corner notch | All microplates | Yes | 25 | 50 |
| 3085 | DMSO-resistant cyclic olefin lid without corner notch | All microplates | No | 25 | 50 |

## Storage Mats and Accessories

- Multiple formats are offered for specific and precise fit on 96 and 384 well microplates and blocks
- Storage Mats Cat. Nos. 3080 and 3083 are manufactured from DMSO-resistant EVA (ethyl vinyl acetate) polymer
- Certified DNase- and RNase-free
- Can be applied manually or with Storage Mat Applicator

### Storage Mats and Accessories Ordering Information

| Cat. No. | Description | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|
| 3080 | Round well storage mat for 96 well microplates and blocks | No | 25 | 100 |
| 3083 | Square well Storage mat for Corning 2 mL square blocks | No | 1 | 50 |
| 3346 | Storage mat for expanded volume 96 well microplates | No | 10 | 50 |
| 3341 | Storage mat for 384 well V-bottom blocks | No | 10 | 50 |
| 3081 | Storage mat applicator | N/A | 1 | 1 |



96 and 384 Well Robolids

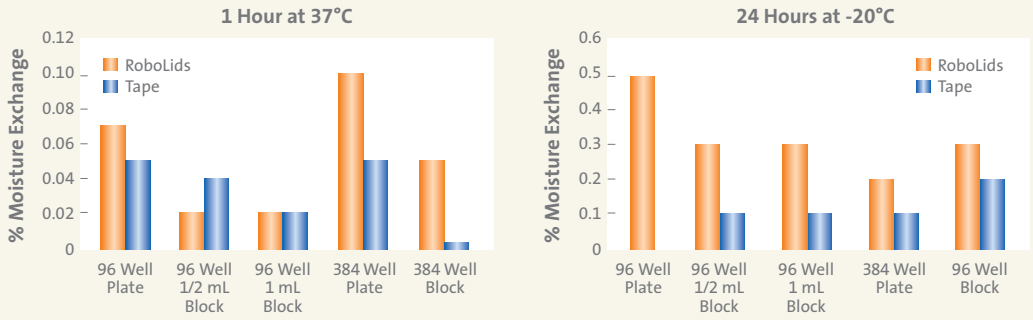
## Robolids

- Combines the sealing ability of a storage mat with the rigidity of a plastic lid
- Designed for repeated application and removal by automation and to prevent short-term evaporation
- Silicone sealing plugs for organic solvent resistance and low extractables
- Can be used manually or with automation

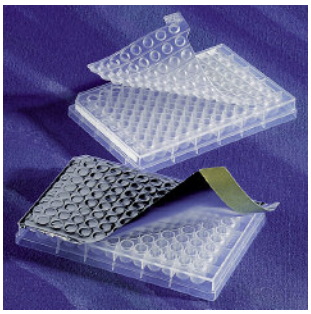
### Robolid Ordering Information

| Cat. No. | Description | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|
| 3090 | 96 well Robolid with corner notch | No | 25 | 50 |
| 3089 | 384 well Robolid with corner notch | No | 25 | 50 |

### Moisture Exchange with Corning® Robolids




Using 100% DSMO, graphs represent the percentage of moisture exchange over a period of time and at various temperatures using aluminum sealing foil and the Robolid. Results show the 96 and 384 well Robolid having comparable results with the aluminum foil. Robolids validated for low percentage of moisture exchange similar to that of foil; the product is not recommended to be used in applications requiring an integral seal.



Sealing Mats and Tapes

## Sealing Tapes

- Easy application and removal for short- and long-term storage
- Provide tight seal to minimize evaporation and condensation
- Acetate Sealing Tape (Cat. No. 3095) is suitable for use between -16°C and 38°C, is transparent, and is not pierceable
- Aluminum Sealing Tape (Cat. No. 6569, 6570) is suitable for use between -80°C and 150°C, is not transparent, and is pierceable
- Breathable Sealing Tape (Cat. No. 3345) allows gas exchange across the surface
- Universal Optical Sealing Tape (Cat. No. 6575) is suitable for use between -70°C and 100°C, and is transparent

### Sealing Tape Ordering Information

| Cat. No. | Description | Sterile | Qty/Pk | Qty/Cs |
|---|---|---|---|---|
| 3095 | Acetate sealing tape for all microplates | No | 100 | 100 |
| 6524 | Polyethylene sealing tape | No | 100 | 100 |
| 6570 | Aluminum sealing tape for 96 well microplates | No | 100 | 100 |
| 6569 | Aluminum sealing tape for 384 well microplates | No | 100 | 100 |
| 3345 | Breathable sealing tape | Yes | 50 | 500 |
| 6575 | Universal Optical sealing tape | No | 100 | 100 |

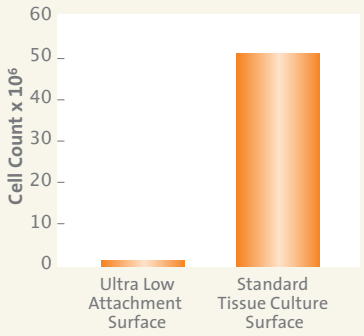
# Technical Appendix

## Corning® Assay Surface Properties and Applications

| Corning Surface | Applications | Binding Interaction | Sample Properties | Performance Criteria |
|---|---|---|---|---|
| **FOR BIOCHEMICAL ASSAYS** | | | | |
| NBS™ coated polystyrene surface | ◗ SPA assays<br>◗ Homogeneous assays | None – Inhibits hydrophobic and ionic interactions | Significantly reduces (<2 ng/cm²) protein and nucleic acid binding | 95% reduction of nonspecific binding of protein compared to untreated polystyrene |
| Medium Binding (Untreated) modified polystyrene surface | ◗ Homogeneous and heterogeneous assays | Hydrophobic | Large biomolecules >20kD with large or abundant hydrophobic regions | 96w clear: Well to well CV ≤ 5%<br>96w black: Well to well CV ≤ 15% (HT)<br>Well to well CV ≤ 3% (HO)<br>96w white: Well to well CV ≤ 8% (HT)<br>Well to well CV ≤ 5% (HO)<br>384w clear: Well to well CV ≤ 10% (HT)<br>384w black and white:<br>Well to well CV ≤ 15% (HT)<br>Well to well CV ≤ 5% (HO) |
| High Binding modified polystyrene surface | ◗ ELISA and other heterogeneous assays | Hydrophobic and ionic (negatively charged) | Improves binding of medium to large biomolecules (>10kD) that are positively charged with or without hydrophobic regions | 96w clear: Well to well CV ≤ 3%<br>96w black: Well to well CV ≤ 8%<br>96w white: Well to well CV ≤ 10%<br>384w clear: Well to well CV ≤ 10%<br>384w black and white:<br>Well to well CV ≤ 15% |
| Aminated-modified polystyrene surface | ◗ Used with bifunctional crosslinkers (i.e., glutaraldehyde, carbodiimide) to covalently couple to functional groups (primary amines, thiols, and carboxyls) on biomolecules | Hydrophilic and ionic (positively charged); allows covalent immobilization | Small negatively charged biomolecules OR biomolecules possessing an appropriate functional amine, carboxyl or thiol group | CV ≤ 5%<br>Percent Covalent Coupling ≥ 95% |
| DNA-BIND® modified polystyrene surface | ◗ Immobilization of aminated DNA for use in nucleic acid hybridization assays and solid-phase PCR<br>◗ Immobilization of peptides and other small primary amine containing molecules | Allows covalent immobilization to amine groups via binding to NOS groups | Small to medium biomolecules, especially DNA, possessing an available amine group | CV ≤ 15% |
| Sulfhydryl-BIND™ modified polystyrene surface | ◗ Assays requiring site-directed orientation of a particular biomolecule, especially antibodies | Allows covalent immobilization via SH moieties on maleimide groups | Biomolecules possessing an accessible sulfhydryl group or reducible disulfide bond | CV ≤ 15%<br>Activated/NonActiviated ≥ 2.0<br>Activated = reduced disulfide bonds |
| Carbo-BIND™ modified polystyrene surface | ◗ Assays requiring site-directed orientation of a particular biomolecule (oxidized antibodies, carbohydrates and glycosylated proteins) while maintaining enzymatic or immunological activity | Allows covalent immobilization via binding to hydroxide groups | Biomolecules possessing carbohydrate moieties available for periodate activation | CV ≤ 15%<br>Activated/Non-activated ≥ 3.0<br>Activated = periodate activation |
| Universal-BIND™ modified polystyrene surface | ◗ Immobilization of double-stranded DNA<br>◗ Immobilization of antigens of unknown structure (available functional groups unidentified)<br>◗ Immobilization of samples containing a mixture of biomolecules, such as cell lysate samples<br>◗ Immobilization of other nonprotein-aceous molecules, such as glycolipids | Allows covalent immobilization via UV cross-linking to abstractable hydrogen | Biomolecules with abstractable hydrogen | CV ≤ 15%<br>Activated/Non-Activated ≥ 2.0<br>Activated – by UV |
| **FOR CELL-BASED ASSAYS** | | | | |
| Standard Tissue Culture Surface | ◗ Assays using standard attachment dependent cell lines | Hydrophilic and ionic interactions (negatively charged) | Allows cell attachment and binding | ≥95% confluency (attachment dependent cell line) |
| Corning® CellBIND® Surface | ◗ Assays for difficult to attach cells<br>◗ Help cells stay attached during washing steps | Hydrophilic and ionic interactions (negatively charged) | Enhances cell attachment uniformity and binding to polystyrene | 96 Well Plates: CV ≤10%; Wells with cells/wells without cells – 2X signal from MTS assay<br>384 Well Plates: CV ≤20%: Wells with cells/wells without cells – 2X signal from MTS assay |
| Poly-D-Lysine-Coated Surface | ◗ Assays for difficult to attach cells<br>◗ Help cells stay attached during washing steps | Hydrophilic and ionic interactions (positively charged) | Enhances cell attachment and binding | 96 Well: CV ≤15%;<br>PDL/TCT ≤2.0 serum free HEK cells<br>384 Well: CV ≤ 20%;<br>PDL/TCT ≥1.5 serum free HEK cells |
| Ultra-Low Attachment Surface | ◗ Assays where preventing cell attachment is required<br>◗ Hybridoma production and clonal isolation by limiting dilution | Nonionic hydrogel layer reduces or eliminates ionic and hydrophobic binding | Prevents or reduces cell attachment and binding | ≥95% cell attachment inhibition |

# Technical Appendix (CONTINUED)

**Corning® Ultra-Low Attachment Surface Microplate** (Cat. No. 3474) has a covalently bonded hydrogel layer to minimize cell attachment, protein absorption, enzyme activation and cellular activation. The surface is noncytotoxic, biologically inert, and nondegradable.




**Comparison of Cell Attachment in Ultra-Low Attachment Surface vs. Standard Tissue Culture Treated Microplates**

Vero cells plated at 2.6 x $10^6$ cells per well grown for 4 days at 37°C in a 5% $CO_2$ environment show a 99% reduction in cellular attachment vs. standard culture treated product.

## High Binding Plate Certification of Corning EIA/RIA Microplates

Corning offers 96 well EIA/RIA microplates and Stripwell™ microplates manufactured from a special medical grade polystyrene for uniform binding, high optical clarity, and low background absorption.

| Certification Standards | High Binding | Medium Binding (Not Treated) |
|---|---|---|
| Well-to-well coefficient of variation (CV) | ≤3% | ≤5% |
| Average high and low wells from the mean | ≤8% | ≤15% |
| Background absorbance units from the mean | ±0.005 | ±0.005 |

Corning high binding microplates have a binding capacity of approximately 500 ng of mouse IgG/$cm^2$. The non-treated microplates have a binding capacity of approximately 250 ng of Mouse IgG/$cm^2$. Corning tests its EIA/RIA microplates on a lot-to-lot basis and the certification results for each lot are made available upon request by contacting your local Corning Life Sciences office. In addition, five ELISA Technical Bulletins are available at **www.corning.com/lifesciences.**

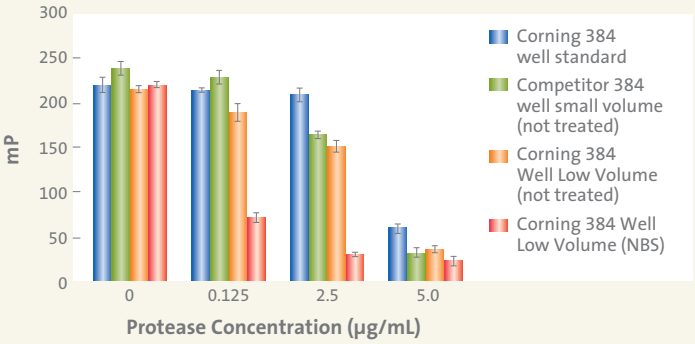
## NBS™ Binding Performance

NBS microplates have a nonionic hydrophilic well surface, and are ideal for minimizing protein binding in homogeneous assays.

| Binding in ng/$cm^2$ | $^{125}$I-IgG | $^{125}$I-BSA | $^{125}$I-Insulin | $^{32}$P-oligo DNA | $^{32}$P- phage DNA |
|---|---|---|---|---|---|
| Polystyrene | 400 | 450 | 310 | 22 | 6 |
| Polypropylene | 380 | 440 | 370 | 3 | <2 |
| NBS on Polystyrene | <2.5 | <2.5 | 5 | <2 | <2 |

## Benefits of NBS™ Chemistry on Homogeneous Assays

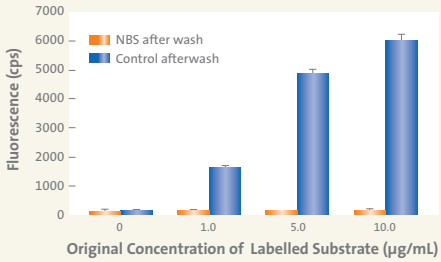
### Fluorescence-based Assay Performance with Corning® NBS Low Volume Microplates




**Higher Sensitivity for Fluorescence Polarization Assays with 384 Well Corning NBS Low Volume Microplates (Cat. No. 3676)**

Data demonstrates *Streptomyces griseus* protease activity on BODIPY fluorescent labeled (FL) casein substrate. Protease activity is measured as a reduction in millipolarization (mP) units. A significant reduction in fluorescence polarization was observed at the lowest concentration of enzyme in a 10 µL volume.

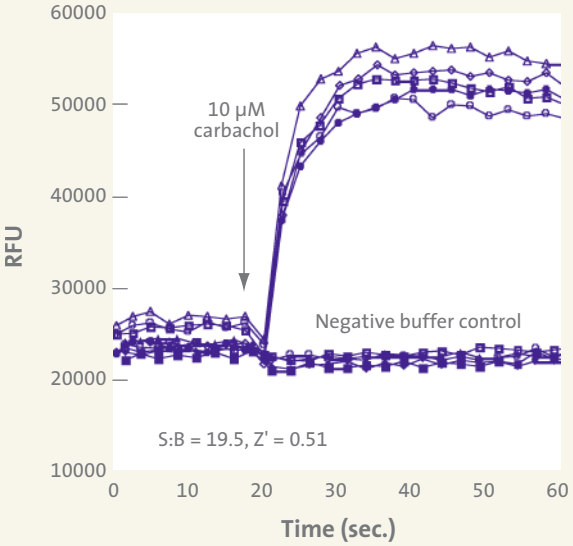
### Reduced Nonspecific Protein Binding with Corning NBS Microplates




**NBS Surface Significantly Reduces Nonspecific Binding of a BODIPY FL Casein Substrate to Corning Microplates**

Dilutions of BODIPY FL casein in digestion buffer were incubated for 30 min at room temperature in black Corning untreated and NBS microplates (Cat. No. 3654). Control wells contained digestion buffer only. Microplates were washed 3 times with PBS, pH 7.4, and 200 µL/well of digestion buffer alone was added to the wells. Fluorescence intensity was measured.

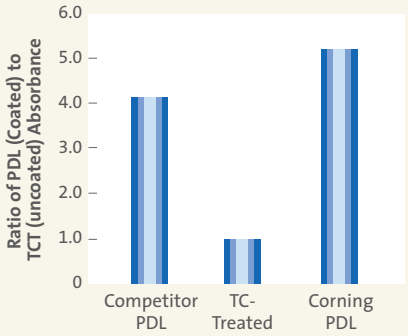
## Miniaturization of Calcium Mobilization Assay in Corning 384 Well Low Volume Black Clear Bottom Tissue Culture Treated Microplate (Cat. No. 3542)




The chromatograms shown here are the rapid increase of calcium signals in Transfected CHO-K1 cells upon the addition of carbachol (n=5 wells). Transfected CHO-K1 cells of M1WT2 (ATCC, CRL-1984) were seeded at 5,000 cells per well in 10 µL medium and then grown in standard $CO_2$ incubator overnight (37°C). After the addition of 10 µL calcium dye solution per well, the microplates were incubated in 37°C for 30 min. After equilibrating to RT for 30 min, microplates were loaded to Flexstation reader (Molecular Devices, Inc.). Five µL of 50 µM carbachol solution (final concentration 10 µM) was transferred to induce the response (or 5 µL of plain buffer for the negative controls). The calcium signal was monitored for 60 sec. Assay was performed with Calcium 3 kit (Molecular Devices, Inc.).

# Technical Appendix (CONTINUED)

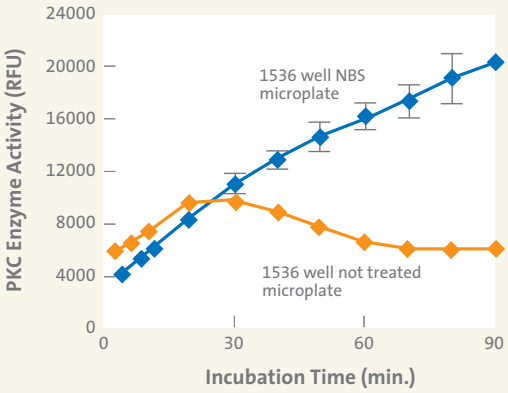
## Performance of Corning® 384 Well Poly-D-Lysine Microplate (Cat. No. 3845)




**Corning 384 Well Poly-D-Lysine (PDL) Microplates** have over 60% more cell attachment capacity than those of a leading competitor. Comparison of cell attachment capacity with Corning PDL coated microplates to competitor's PDL coated microplates and uncoated TC-treated plates. BHK-21 cells (1 x $10^4$ cells/well) were incubated in 25 µL of DMEM F-12 media in 8 replicate wells for 1 hour (37°C, 5% $CO_2$) on 384 well black/ clear bottom microplates.

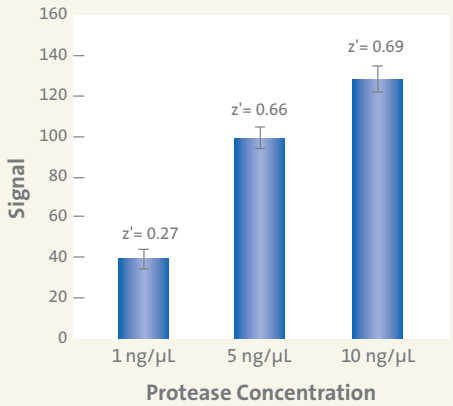
Data provided by Sigma-Aldrich Corporation. Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications.

## Improved Kinase Performance with Corning 1536 Well Solid Black NBS™ Microplate (Cat. No. 3728)




The fluorescence of the fluorogenic substrate is quenched in this assay. Upon phosphorylation, the quenching mechanism is released, resulting in a significant increase in fluorescence intensity (FI), and therefore, kinase activity can be monitored continuously. The total reaction volume was 8 µL and contained 20 mM Tris-HCl (pH 7.6), 5 mM $MgCl_2$, 5 mM DTT, 10% Lipid Activator, 6 µM fluorogenic substrate, 10 µM ATP and 50 pg/mL PKC β-II. Signals were measured by Acquest™ reader (Molecular Devices, Inc.). The PKC assay was developed by Applied Biosystems, Inc.

## Performance of Corning 1536 Well 10 µL Round Well Microplate (Cat. No. 3936)




**Fluorescent Polarization Assay on Corning 1536 10 µL Assay Microplate** 10 ng/µL, 5 ng/µL and 1 ng/µL of *Streptomyces griseus* protease were incubated with 2.0 ng/µL of BODIPY FL casein substrate in 5 µL volumes for 10 minutes at room temperature. (Corning 1536 Well 10 µL black microplate, untreated, Cat. No. 3936).

## Selected Corning Technical Literature

All literature is available in PDF file format at **www.corning.com/lifesciences**.

### Assay Microplates

**Chemiluminescent HRP-Based Assay Using Corning® White Microplate**

A comparison of the performance of white microplates from several microplate manufacturers to that of Corning 96 well white microplate using a model HRP-based luminescent assay system.

**Corning Non-Binding Surface Treatment to Reduce Non-Specific Binding To Microplates**

This 2-page technical note evaluates Corning NBS™ microplates for Scintillation Proximity Assays.

**Corning 384 Well Low Volume Microplate Performance in Miniaturized Assays (ALSP-AN-014)**

This technical note describes the performance of low volume microplates using a homogeneous fluorescence polarization assay at low volumes.

**Fluorescent Polarization Kinase Assay Miniaturization in Corning 96 Well Half Area and 384 Well Microplates**

This 4-page technical note examines assay miniaturization in Corning 96 well, 96 well half area, and 384 well microplates using fluorescence polarization tyrosine kinase assays.

**Comparative Analysis of Corning Microplates using the PerkinElmer® EnVision® Multilabel Microplate Reader SnAPPShot (CLS-AN-131)**

The following compares and contrasts various 96 and 384 well microplate formats in fluorescent and luminescent biochemical assays using the PerkinElmer EnVision multilabel microplate reader.

**Impact of Microplate Choice on HTRF® Assay Performance SnAPPShot (CLS-AN-096)**

This SnAPPShot compares and contrasts the importance of microplate color and geometry in determining HTRF assay performance.

**Corning NBS 384 Well Low Volume Microplates Perform Well in Fluorescence Polarization Based Assays SnAPPShot (CLS-AN-056)**

This brief 2-page technical report shows that NBS microplates do not interfere with the binding affinity of neurotensin receptors and perform well in FP based receptor-ligand binding assays.

**Performance Advantage of Corning NBS Microplates in Homogeneous Biochemical Assays SnAPPShot (CLS-AN-055)**

This brief 2-page technical report shows that NBS microplates provide the widest signal dynamic range and most stable fluorescence signals for this HTS assay versus not treated microplates.

**Bar Code Basics Technical Bulletin (CLS-AN-021)**

This 3-page bulletin is a reference tool for customers that provides the anatomy of a bar code and terminology pertaining to the bar code structure.

### Cell Culture Microplates

**Helpful Hints to Manage Edge Effects of Cultured Cells for High-Throughput Screening (CLS-AN-038W)**

This technical note is a compendium of techniques, collected from Corning Cell Culture facilities and customers, to reduce the occurrence of irregular patterns of cell adhesion or "edge effect" in microplates.

**Poly-D-Lysine Coated Microplates (ALSP-AN-015)**

This 2-page application report describes binding and performance characteristics, and provides operating protocols for Corning's Poly-D-Lysine microplates.

**Corning® CellBIND® Surface: An Improved Surface for Enhanced Cell Attachment Technical Report (CLS-AN-057)**

The Corning CellBIND Surface is a plasma surface treatment for tissue culture vessels. This optimized tissue culture surface treatment increases the oxygen content of the polymer surface resulting in improved hydrophilicity and wettability, which is known to improve cell spreading and attachment.

**Miniaturization of a Calcium Mobilization Assay in 384 Well Format SnAPPShot (CLS-AN-068)**

In this study, we show a calcium mobilization assay that has been miniaturized to 25 to 40 µL using a new 384 well low volume (LV) black clear bottom (BCB) microplate from Corning.The results demonstrate that the quality of the data and assay performance on this LV microplate are comparable to that obtained from 384 well normal volume (NV) microplates.

**Miniaturization of a Luciferase Reporter Gene Assay Show Enhanced Assay Performance With Considerable Cost Savings SnAPPShot (CLS-AN-093)**

This short application note describes cost savings and cell-based assay improvement made possible by moving from a normal to a low volume 384 well format.

**Considerations When Using Frozen Cells for High-Throughput Cell-Based Assays SnAPPShot (CLS-AN-117)**

This SnAPPShot discusses the advantages and disadvantages of using batch-frozen versus continuously cultured cells in multiple assay formats.

**Instrument and Microplate Considerations to Improve Image Capture and Data Generation During High Content Screens Application Note (CLS-AN-081)**

Optimization of several parameters is essential during the development of a robust and informative high content screen, particularly when considering the complexity involved in cell-based assays. This 8-page report evaluates the impacts of instrument settings and microplate characteristics on assay robustness and data validity and provides a guide for significantly improving results when conducting a high content screen.

## CORNING 96 WELL MICROPLATE SELECTION CHART

| | Page Number | AVAILABLE SURFACES: Not Treated | High Bind | Medium Bind | NBS™ | Carbo-BIND™ | Sulfhydryl-BIND™ | Universal-BIND™ | DNA-BIND® | Amine | TC-Treated | Corning® CellBIND® Surface | Ultra-Low Attachment Surface | Poly-D-Lysine | UV Transparent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **96 Well Clear Polystyrene Microplates** | | | | | | | | | | | | | | | |
| Round Bottom | 7 | ■ | ■ | | | | | | | | ■ | | | | |
| V-Bottom | 7 | ■ | | | | | | | | | ■ | | | | |
| Flat Bottom | 7 | ■ | ■ | | ■ | ■ | ■ | ■ | | | ■ | ■ | ■ | ■ | |
| Flat Bottom Half Area | 7 | ■ | ■ | | | | | | | | ■ | | | | |
| Flat Bottom Easy Wash | 7 | ■ | ■ | | | | | | | | | | | | |
| **96 Well Solid Black Polystyrene Microplates** | | | | | | | | | | | | | | | |
| Round Bottom | 8 | ■ | | | | | | | | | | | | | |
| Flat Bottom | 8 | ■ | ■ | | ■ | | | | | | ■ | | | | |
| Flat Bottom Half Area | 8 | ■ | | | ■ | | | | | | ■ | | | | |
| **96 Well Black Clear Bottom Polystyrene Microplates** | | | | | | | | | | | | | | | |
| Flat Bottom | 8–9 | ■ | ■ | | ■ | | | | | | ■ | ■ | | ■ | |
| Flat Bottom Half Area | 9 | ■ | | | ■ | | | | | | ■ | | | ■ | |
| **96 Well Solid White Polystyrene Microplates** | | | | | | | | | | | | | | | |
| Round Bottom | 8 | ■ | | | ■ | | | | | | | | | | |
| Flat Bottom | 8 | ■ | ■ | | ■ | | | | | | ■ | | | | |
| Flat Bottom Half Area | 8 | ■ | | | ■ | | | | | | ■ | | | | |
| **96 Well White Clear Bottom Polystyrene Microplates** | | | | | | | | | | | | | | | |
| Flat Bottom | 8–9 | ■ | | | ■ | | | | | | ■ | | | ■ | |
| Flat Bottom Half Area | 9 | ■ | | | ■ | | | | | | ■ | | | | |
| **96 Well Stripwell Polystyrene Microplates** | | | | | | | | | | | | | | | |
| Flat Bottom | 10 | | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | | | | |
| Flat Bottom - Low Volume | 10 | | ■ | ■ | | | | | | | | | | | |
| **96 Well UV Microplates** | | | | | | | | | | | | | | | |
| Flat Bottom | 9 | | | | | | | | | | | | | | ■ |
| Flat Bottom Half Area | 9 | | | | | | | | | | | | | | ■ |
| **96 Well Clear Flexible Polyvinyl (PVC) Microplates** | | | | | | | | | | | | | | | |
| V-Bottom | 9 | ■ | | | | | | | | | | | | | |
| Round Bottom | 9 | ■ | | | | | | | | | | | | | |
| Flat Bottom | 9 | ■ | | | | | | | | | | | | | |
| **96 Well Polypropylene Microplates** | | | | | | | | | | | | | | | |
| V-Bottom | 11 | ■ | | | | | | | | | | | | | |
| V-Bottom – Expanded Volume | 11 | ■ | | | | | | | | | | | | | |
| Round Bottom | 11 | ■ | | | | | | | | | | | | | |
| Flat Bottom | 11 | ■ | | | | | | | | | | | | | |
| **96 Well Polypropylene Storage Blocks** | | | | | | | | | | | | | | | |
| V-Bottom | 11 | ■ | | | | | | | | | | | | | |
| Round Bottom | 11 | ■ | | | | | | | | | | | | | |

## CORNING 384 AND 1536 WELL MICROPLATE SELECTION CHART

| | Page Number | AVAILABLE SURFACES: Not Treated | High Bind | Medium Bind | NBS™ | TC-Treated | Corning® CellBIND® Surface | Ultra-Low Attachment Surface | Poly-D-Lysine | UV Transparent |
|---|---|---|---|---|---|---|---|---|---|---|
| **384 Well Clear Polystyrene Microplates** | | | | | | | | | | |
| Flat Bottom | 14 | ■ | ■ | | ■ | ■ | | | ■ | |
| **384 Well Solid Black Polystyrene Microplates** | | | | | | | | | | |
| Flat Bottom | 14 | ■ | | | ■ | ■ | | | | |
| Round Bottom, Low Volume | 14 | ■ | ■ | ■ | ■ | | | | | |
| Flat Bottom, Low Volume | 14 | ■ | | | ■ | ■ | | | | |
| **384 Well Black Clear Bottom Polystyrene Microplates** | | | | | | | | | | |
| Flat Bottom | 15 | ■ | | | ■ | ■ | ■ | | ■ | |
| Flat Bottom, Low Volume | 15 | ■ | | | ■ | ■ | | | | |
| **384 Well Solid White Polystyrene Microplates** | | | | | | | | | | |
| Flat Bottom | 14 | ■ | | | ■ | ■ | | | | |
| Round Bottom, Low Volume | 14 | ■ | | ■ | ■ | | | | | |
| Flat Bottom, Low Volume | 14 | | | | ■ | ■ | | | | |
| **384 Well White Clear Bottom Polystyrene Microplates** | | | | | | | | | | |
| Flat Bottom | 15 | ■ | | | ■ | ■ | | | ■ | |
| **384 Well UV Microplates** | | | | | | | | | | |
| Flat Bottom | 15 | | | | | | | | | ■ |
| **384 Well Polypropylene Microplate** | | | | | | | | | | |
| Round Bottom | 16 | ■ | | | | | | | | |
| Conical Bottom | 16 | ■ | | | | | | | | |
| **384 Well Polypropylene Storage Block** | | | | | | | | | | |
| Round Bottom | 16 | ■ | | | | | | | | |
| V-Bottom | 16 | ■ | | | | | | | | |
| **1536 Well Clear COC Echo Qualified Microplates** | | | | | | | | | | |
| Flat Bottom | 18 | ■ | | | | | | | | |
| **1536 Well Solid Black Polystyrene Microplates** | | | | | | | | | | |
| Flat Bottom | 17 | ■ | | | ■ | ■ | | | | |
| Round Bottom | 17 | ■ | | | | | | | | |
| **1536 Well Black Clear Bottom Polystyrene Microplates** | | | | | | | | | | |
| Flat Bottom | 18 | ■ | | | ■ | ■ | ■ | | | |
| **1536 Well Solid White Polystyrene Microplates** | | | | | | | | | | |
| Flat Bottom | 17 | ■ | | | ■ | ■ | ■ | | | |
| Round Bottom | 17 | ■ | | | | | | | | |

## Trust Corning for Your Research

For superior quality and performance in life science research tools, you can count on Corning. Our comprehensive line of advanced products and technologies is designed to meet your evolving needs in cell-based and genomics research. To learn more, please visit **www.corning.com/lifesciences**, or call 1.800.492.1110. Customers outside the U.S., please call 1.978.442.2200 or contact your local support office (listed below).

## Contact Corning

For one-stop shopping from an innovation-driven global company, contact Corning Incorporated Life Sciences. Our worldwide sales and distribution network delivers fast, individualized service – anywhere around the globe.

For additional product information, please visit **www.corning.com/lifesciences**, or call 1.800.492.1110. Customers outside the United States, please call 1.978.442.2200 or contact your local support office (listed below).

CORNING


**Corning Incorporated**
*Life Sciences*
Tower 2, 4th Floor
900 Chelmsford St.
Lowell, MA 01851
t 800.492.1110
t 978.442.2200
f 978.442.2476

www.corning.com/lifesciences

**Worldwide Support Offices**

**ASIA/PACIFIC**

**Australia/New Zealand**
t 0402-794-347

**China**
t 86 21 2215 2888
f 86 21 6215 2988

**India**
t 91 124 4604000
f 91 124 4604099

**Japan**
t 81 3-3586 1996
f 81 3-3586 1291

**Korea**
t 82 2-796-9500
f 82 2-796-9300

**Singapore**
t 65 6733-6511
f 65 6861-2913

**Taiwan**
t 886 2-2716-0338
f 886 2-2716-0339

**EUROPE**

**France**
t 0800 916 882
f 0800 918 636

**Germany**
t 0800 101 1153
f 0800 101 2427

**The Netherlands**
t 31 20 655 79 28
f 31 20 659 76 73

**United Kingdom**
t 0800 376 8660
f 0800 279 1117

**All Other European Countries**
t 31 (0) 20 659 60 51
f 31 (0) 20 659 76 73

**LATIN AMERICA**

**Brasil**
t (55-11) 3089-7419
f (55-11) 3167-0700

**Mexico**
t (52-81) 8158-8400
f (52-81) 8313-8589





Corning Incorporated, One Riverfront Plaza, Corning, NY 14831–0001