

The ibidi product family is comprised of a variety of μ-Slides, μ-Dishes, and μ-Plates, which have all been designed for high-end microscopic analysis of fixed or living cells.

The glass bottom versions are especially designed for TIRF, super resolution and single molecule applications.

The μ-Plate 96 Well Black Glass Bottom allows you to perform high resolution microscopy in a standard multi-well format. For less well-to-well crosstalk in fluorescence microscopy this imaging plate is made out of a black polymer material.

Overview

This document is applicable to the following product numbers:

Cat. No.	Product Name
89627	μ-Plate 96 Well Black Glass Bottom: #1.5H (170 μm ±5 μm) D 263 M Schott glass, sterilized, individually packed

Material

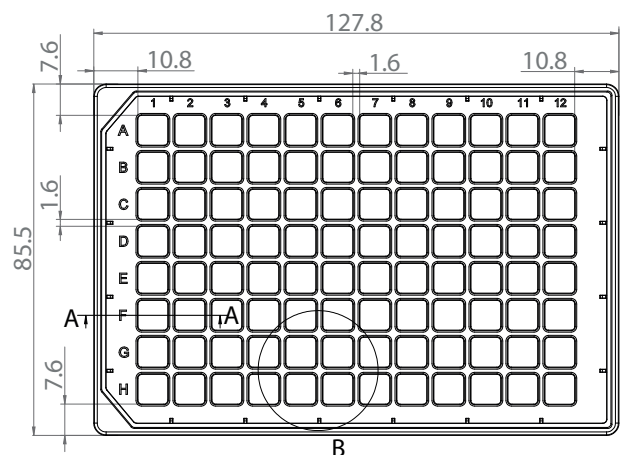
The μ-Plate 96 Well Black Glass Bottom is made with a glass coverslip bottom. It is not possible to detach the bottom. The μ-Plate 96 Well Black Glass Bottom is intended for one-time use and not autoclavable since it is temperature stable only up to 80°C/175°F.

Optical Properties of the Glass Coverslip Bottom	
Refractive index n_D	1.523
Abbe number	55
Thickness	No. 1.5H (selected quality 170 μm, ± 5 μm)
Material	Schott borosilicate glass, D 263M

Conditions	
Shipping conditions	Ambient
Storage conditions	RT (15–25°C)
Shelf Life	
Glass Bottom	36 months

Geometry

The μ-Plate 96 Well Black Glass Bottom provides standard geometry and numbering (A-H, 1-12).



Attention!

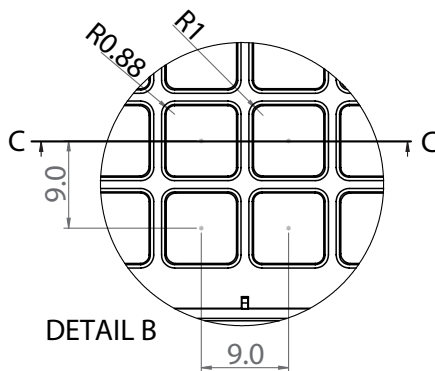
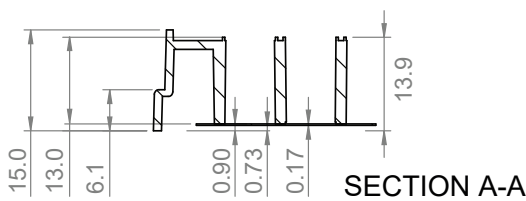
Be cautious when handling ibidi labware products with glass bottom! The glass coverslip or glass slide is very fragile and might break easily. Handle with care to avoid physical injury and damage to devices through leakage of the medium.

Shipping and Storage

The μ-Slides, μ-Dishes and μ-Plates are sterilized and welded in a gas-permeable packaging. The shelf life under proper storage conditions (in a dry place, no direct sunlight) is listed in the following table.

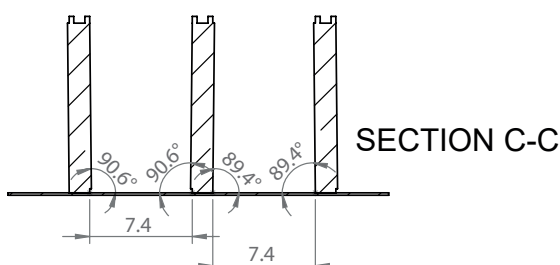
The μ-Plate 96 Well Black Glass Bottom meets all important values of the ANSI/SLAS (SBS) Standards (1-2004, 2-2004, 3-2004 and 4-2004).

Dimensions in mm		
Length	127.8	± 0.2
Width	85.5	± 0.2
Height with lid	17.2	± 0.4
Height without lid	15.0	± 0.4
Well to well distance	9.0	± 0.1
Well clearance	0.73	± 0.1
Focal offset	0.9	± 0.1



Single Well Dimensions	
Single well dimensions	7.4 × 7.4 ± 0.15 mm
Single well depth	13.0 ± 0.2 mm
Volume	300 μl
Growth area	0.56 cm ²
Coating area using 300 μl	2.35 cm ²

For manufacturing process reasons, the well wall angles differ slightly. The details are shown in the graphic below.



Surface

The μ-Plate 96 Well Black Glass Bottom is manufactured with an uncoated glass coverslip. Washing steps (e.g. with PBS) before cell seeding can remove glass dust which is advantageous for direct cell growth on the surface.

Coating

Detailed information about coatings is provided in [Application Note 08: Coating protocols for ibidi labware products](#).

In short, specific coatings are possible following this protocol:

1. Prepare your coating solution according to the manufacturer's specifications or reference.
2. Apply 300 μl and leave at room temperature for at least 30 minutes.
3. Aspirate the solution and wash with the recommended protein dilution buffer.
4. The μ-Plate 96 Well Black Glass Bottom is ready to be used. Optionally let dry at room temperature. Attention, some coating proteins might degenerate when drying!

Seeding Cells

- Trypsinize and count cells as usual. Dilute the cell suspension to the desired concentration. Depending on your cell type, application of a $2-5 \times 10^4$ cells/ml suspension should result in a confluent layer within 2-3 days.
- Apply 300 μl cell suspension into each single well. Avoid shaking, as this will result in inhomogeneous distribution of the cells.
- Cover the μ-Plate with the supplied lid. Incubate at 37°C and 5% CO₂ as usual.

Undemanding cells can be left in their seeding medium for several days and grow to confluence there. However, best results might be achieved when the medium is changed every 2-3 days. Carefully aspirate the old medium and replace it by 300 μl fresh medium.

Tip:

You can stack the μ-Plates to save space in your incubator. This will not affect cell growth. We recommend making batches with not more than 6 plates, due to stability reasons.

Microscopy

To analyze your cells, no special preparations are necessary. Cells can be directly observed live or fixed, preferably on an inverted microscope. The bottom cannot be removed. For optimal results in fluorescence microscopy and storage of fixed and stained samples, ibidi provides mounting media (50001 and 50011) optimized for μ-Dishes, μ-Slides, and μ-Plates.

Chemical Compatibility

The following table provides some basic information on the chemical and solvent compatibility of the μ-Plate 96 Well Black Glass Bottom. For a full list of compatible solvents and more information on chemical compatibility, please visit the FAQ section on [ibidi.com](https://www.ibidi.com).

Chemical / Solvent	Compatibility
Methanol	yes
Ethanol	yes
Formaldehyde	yes
Acetone	no
Mineral oil	yes
Silicone oil	yes
Immersion oil	See Immersion Oil on page 3.

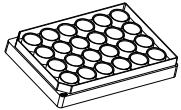
Immersion Oil

When using ibidi Glass Bottom products with oil immersion objectives, there is no known incompatibility with any immersion oil on the market. All types of immersion oils can be used.

Ordering Information

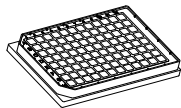
The ibidi μ-Plates are available in the following product versions.

μ-Plate 24 Well Black ID 14 mm



Cat. No.	Description
82426	μ-Plate 24 Well Black ID 14 mm ibiTreat: #1.5 polymer coverslip, tissue culture treated, sterilized, individually packed
82421	μ-Plate 24 Well Black ID 14 mm Uncoated: #1.5 polymer coverslip, hydrophobic, sterilized, individually packed

μ-Plate 96 Well Black



Cat. No.	Description
89626	μ-Plate 96 Well Black ibiTreat: #1.5 polymer coverslip, tissue culture treated, sterilized, individually packed
89621	μ-Plate 96 Well Black Uncoated: #1.5 polymer coverslip, hydrophobic, sterilized, individually packed
89627	μ-Plate 96 Well Black Glass Bottom: #1.5H (170 μm ±5 μm) D 263 M Schott glass, sterilized, individually packed

μ-Plate 384 Well Black



Cat. No.	Description
88407	μ-Plate 384 Well Black Glass Bottom: #1.5H (170 μm ±5 μm) D 263 M Schott glass, sterilized, individually packed

For research use only!

Further information can be found at ibidi.com. For questions and suggestions please contact us by e-mail info@ibidi.de or by telephone +49 (0)89/520 4617 0.

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