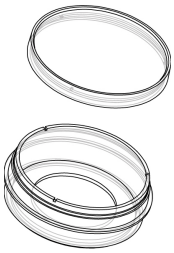


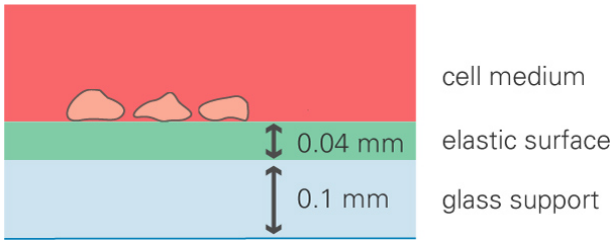
The ibidi product family is comprised of a variety of µ–Slides and µ–Dishes, which have all been designed for high–end microscopic analysis of fixed or living cells. The high optical quality of the material is similar to that of glass, so you can perform all kinds of fluorescence experiments with uncompromised resolution and choice of wavelength.

The µ–Dish 35mm, high allows you to perform high resolution microscopy in a 35 mm Petri–dish with 12 mm walls. The standard height allows convenient liquid handling. The lid can be closed to hinder evaporation during long term experiments.

The ibidi µ–Dish 35mm, high ESS is a product for growing cells on a *in vivo*–near elastic surface. ESS stands for elastically supported surface. The surface elasticity (Young Module) is 1.5 kPa, 15 kPa, or 28 kPa.

Material

The µ–Dish ESS provides a special elastic surface for *in vivo* like cell cultivation. On a 100 µm thin glass cover slip, a 40 µm highly-elastic material (polydimethylsiloxane) is coated. The whole bottom provides a thickness of 140 µm and a very high optical quality.



Geometry

Geometry of the µ–Dish 35 mm, high ESS	
Diameter dish	35 mm
Volume	2000 µl
Growth area	3.5 cm^2
Diameter growth area	21 mm
Coating area using 800 µl	4.2 cm^2
Height with / without lid	14 mm / 12 mm
Bottom matches coverslip	No. 1 (140 µm)

Attention!

Be cautious when handling µ–Slides and µ–Dishes with glass bottom! The glass coverslip 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.

Conditions	
Shipping conditions	Ambient
Storage conditions	RT (15-25°C)

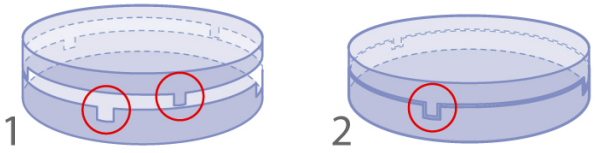
Shelf Life of Different Surfaces	
ibiTreat, Glass Bottom, ESS	36 months
Collagen, Poly-Lysine	18 months
Fibronectin	4 months

Surface and coating

The uncoated µ–Dish 35mm, high ESS must be coated to promote cell adhesion. Please follow these steps or see Application Note 08 "Cell culture coating" on www.ibidi.com.

- Prepare your coating solution according to the manufacturer's specifications or reference. Adjust the concentration to a coating area of 4.2 cm^2 and 800 µl.
- Apply 800 µl into the growth area. Make sure that the entire bottom is covered with liquid easily tilting or shaking the µ–Dish. Put on the lid and leave at room temperature for at least 60 minutes.
- Aspirate the solution and wash. Use as soon as possible. The ESS surface must not be dried after coating.

Using The Lid



1. open position, easy opening
2. close position, for long term studies, minimal evaporation

Seeding Cells

Depending on your cell type, application of a 4–9 × 10^4 cells/ml suspension should result in a confluent layer within 2–3 days.

- Trypsinize and count cells as usual. Dilute the cell suspension to the desired concentration.
- Apply 400 µl cell suspension into the inner well of the µ–Dish. Avoid shaking as this will result in inhomogeneous distribution of the cells.
- After cell attachment add additionally 1.6 ml of pure medium to ensure optimal grow conditions.
- Cover the µ–Dish with the supplied lid. Incubate at 37°C and 5 % CO_2 as usual.

We recommend not to fill more than the indicated total volume into the µ–Dish 35mm, high ESS in order to avoid the liquid contacting the lid.

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

Preparation for cell microscopy

Using ESS it is possible to combine microscopy with a close to nature environment. To analyze your cells no special preparations are necessary. Cells can be observed live or fixed directly in the µ–Dish on an inverted microscope. For ESS µ–Dishes we recommend paraformaldehyde fixation. Due to the thin bottom of 140 µm, high-end microscopy (confocal techniques, high resolution fluorescence, etc.) is possible.

Minimizing Evaporation

Using the µ–Dish with a closed lid, the evaporation in an incubator system with 37°C and 95 % humidity is around 1 % per day. Using the µ–Dish with a closed lid in a 37°C heating system with low humidity (between 20 % and 40 %), the evaporation is around 10 % per day. For reducing the evaporation down to 1 % per day in all systems, we recommend sealing the lid with ibidi Anti–Evaporation Oil (50051).

Immersion Oil

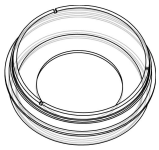
When using oil immersion objectives, use only the immersion oils specified in the table. The use of a non–recommended oil could lead to the damage of the plastic material and the objective.

Company	Product	Ordering Number
Zeiss	Immersol 518 F	(Zeiss) 444960
Zeiss	Immersol W 2010	(Zeiss) 444969
Leica	Immersion liquid	(Leica) 11513859

ESS family

The ESS surface is available with different surface elasticities in the µ–Dish 35mm, high.

µ–Dish 35mm, high ESS



Cat. No.	Description	Characteristics
81291	**µ–Dish 35mm, high ESS 1.5 kPa Uncoated**: ⌀ 35 mm, high wall (2 ml volume), elastic surface with a stiffness of 1.5 kPa	hydrophobic, sterilized
81391	**µ–Dish 35mm, high ESS 15 kPa Uncoated**: ⌀ 35 mm, high wall (2 ml volume), elastic surface with a stiffness of 15 kPa	hydrophobic, sterilized
81191	**µ–Dish 35mm, high ESS 28 kPa Uncoated**: ⌀ 35 mm, high wall (2 ml volume), elastic surface with a stiffness of 28 kPa	hydrophobic, sterilized
81199	**µ–Dish 35mm, high ESS Variety Pack Uncoated**: ⌀ 35 mm, high wall (2 ml volume), elastic surface with a stiffness of 1.5, 15, and 28 kPa	hydrophobic, sterilized

For research use only!

Further technical specifications can be found at www.ibidi.com. For questions and suggestions please contact us by e-mail *info@ibidi.de* or by telephone +49 (0)89/520 4617 0. All products are developed and produced in Germany.