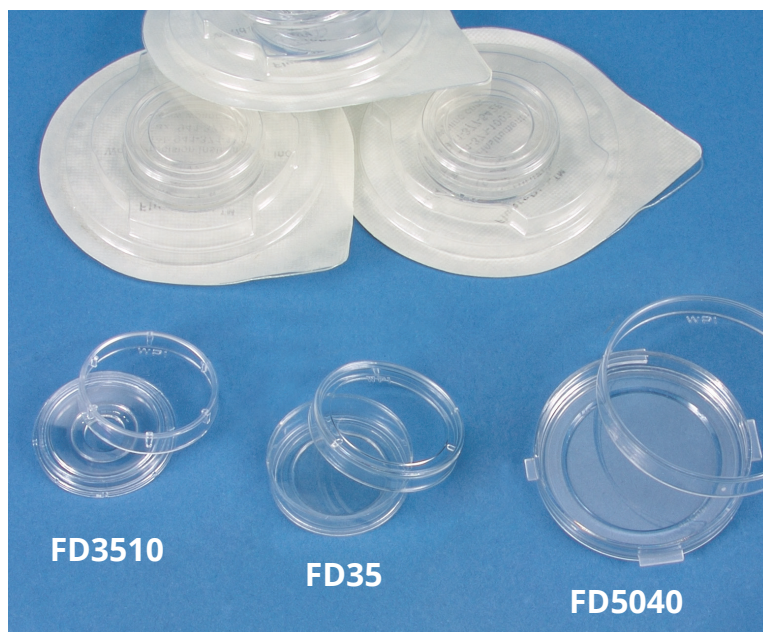




**WORLD  
PRECISION  
INSTRUMENTS**  
*Instrumenting scientific ideas*

## FluoroDish™

*Cover-glass bottom for observing and growing cells in imaging related research*



- **Optical quality glass bottom for better imaging quality (RI=1.525)**
- **Low sample volume for expensive chemicals**
- **Lowest access angle for micropipette**
- **Low toxicity adhesive for embryo research**

WPI's **FluoroDish™** tissue culture dishes are now available in a larger range of sizes and coatings. These dishes provide exceptional imaging quality for many applications requiring the use of inverted microscopes such as high resolution image analysis, microinjection and electrophysiological recording of fluorescent-tagged cells. Taking advantage of WPI's extensive experience with low toxicity adhesives, **FluoroDish™** uses a specially

formulated adhesive that is optically clear, durable and with extremely low toxicity. Tests by an independent laboratory have shown that the 96-hour surviving rate of embryos is 100% when kept in FluoroDish, substantially better than some other brands. The bottom glass has superior UV transmission (30% transmission at 300 nm, compared to less than 7% for the most popular German glass). Stringent quality control ensures that glass thickness stays within the  $0.17 \pm 0.01$  mm range.

Conventional plastic dishes and chambers limit the utility of the inverted scope for many applications because the thick plastic bottom requires a long working distance objective available only in lower magnifications. Each WPI dish has a flat (0.17 mm thick) optical quality glass bottom, allowing the use of a much shorter objective working distance, larger numerical aperture (NA), and a higher magnification (up to 100x). The larger NA and higher magnification provide superior quality imaging for both classical and fluorescence microscopy. Higher effective NA yields brighter images for fluorescence and higher resolution in Image Analysis. The glass bottom permits the use of immersion objectives with medium such as water, glycerin or oil for the highest magnification possible. To optimize heat-exchange, WPI's glass-bottom dish is designed to be flush (flat) with the microscope stage or heating unit, therefore eliminating the air gap that exists with modified plastic dishes

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in which a glass cover slip has been inserted.

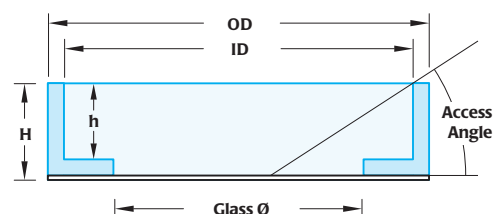
Three different sizes of FluoroDish are offered, one type of 50 mm diameter dish and two types of 35 mm diameter dishes. An inner well is created within the dish by the glass bottom and the tissue culture grade polystyrene which forms the sides of the dish. All WPI dishes have the advantages of low toxicity and good UV transmission bottom glass. They are individually packed and gamma sterilized.

The 35 mm dish has outside dimensions similar to that of a Corning 35 mm dish and has  $\varnothing 23.5$  mm glass window (**FD35**) or  $\varnothing 10$  mm glass window (**FD3510**). Most heaters and perfusion adapters designed for the Corning 35 mm dish will also fit this dish. The 23.5 mm glass window dish is available uncoated or poly-D-lysine-coated. Certain types of cell lines (e.g., PC3 and HEK) adhere well to the uncoated glass bottom dish. The poly-D-lysine coating has been reported to improve the adhesion of neuron cells. The users can also apply to the uncoated dish any special coating that is best for their cell line.

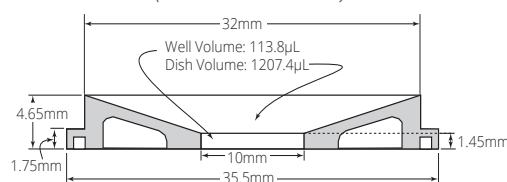
The 10 mm glass window dish (**FD3510**) has low sidewall for easy microelectrode access and low solution volume. The

low microelectrode access angle is the lowest among all of 35 mm dishes on the market (very close that of a 50 mm dish). The dish needs only about 115  $\mu\text{L}$  to cover the bottom well, an important feature when using expensive drugs and chemicals.

The 50 mm dish (**FD50**) has a large growth area (35 mm well diameter), a low access angle for microelectrodes, and grips for easy handling.



**Standard Fluorodish geometry.**  
(See table below.)



**FD3510**

Part Number	ID (mm)	OD (mm)	Glass Ø (mm)	Height (inside)	Height (outside)	Access Angle
FD35	33	35.5	23.5	7.8	9	29°
FD5040	47.5	49.82	35	7.25	7.4	17°

<b>FD35-100</b>	FluoroDish Sterile Culture Dish, clear wall, 35 mm, 23 mm well, box of 100
<b>FD35PDL-100</b>	FluoroDish Sterile Culture Dish, Poly-D-Lysine Coated, clear wall, 35 mm, 23 mm well, box of 100
<b>FD3510-100</b>	FluoroDish Sterile Culture Dish, clear wall, 35 mm, 10 mm well, low sidewall, box of 100
<b>FD5040-100</b>	FluoroDish Sterile Culture Dish, clear wall, 50 mm, 35 mm well, box of 100



## WORLD PRECISION INSTRUMENTS

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