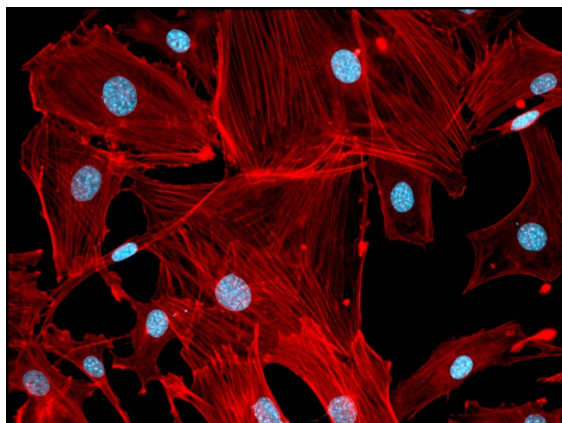


Technical specification of the fluorocarbon film

- Thickness: 25µm ± 10%
- Light transmission: >70% @ 240nm, >90% @ 300nm
- Refractive index: 1.34
- Abbe's number: >70
- Oxygen permeability [cm³/(m²*d* bar)]: >6300
- CO₂ permeability [cm³/(m²*d* bar)]: >7000
- Coefficient of thermal conductivity [mW/K]: 0.01
- Dielectric strength: 240 kV/mm



Can the thin bottom film of the Imaging Plate FC be perforated by pipette tips?

The fluorocarbon film shows an elongation at break of 300%. Very sharp instruments are usually necessary to puncture the film accidentally or by intention (e.g. metal canulas, scalpel knives). Strong forces and touching of the bottom by pipette tips nevertheless should be avoided (deformation, scratches, shearing film from plate bottom).

Can the Imaging Plate FC be used in a centrifuge?

Though the adhesive used to bond the film and plate bottom withstands mild centrifugation forces if the bottom is mechanically supported it is generally not recommended to use the plate in a centrifuge.

Which immersion media can be used?

All general types of immersion media (oil, glycerine, water) can be used.

How long can the Imaging Plate FC be incubated?

Batch release incubation tests are performed for 14 days. Longer incubation should be possible without harm.

I have problems with focusing. What can be done?

The bottom of the plates is only 25µm thick. Please make sure that you use objectives (important for 40x magnification and higher) which can be adjusted to these bottom thicknesses or are corrected for 170µm or thinner cover glass. A known incompatibility exists with the InCell Analyzer 3000 (it's autofocus system needs a bottom of minimal 600µm). Other systems are fully compatible (e.g. InCell Analyzer 1000) and give you the full benefit of optical properties of the plates.

Which methods and chemicals can be used for fixation and permeabilization in the plates?

The polystyrene (PS) body of the plates is the limiting factor in the selection of chemicals (s. chemical compatibility charts for PS). The fluorocarbon bottoms withstand all generally applied chemicals and fixation, permeabilization or embedding procedures. Upper temperature limits for the integrity of the plates are 50°C. Lower temperature limits are -80 °C.