The Dolomite Centre Ltd.
Unit 1, Anglian Business Park, Orchard Road,
Royston, Hertfordshire, SG8 5TW, UK
T: +44 (0)1763 242491
F: +44 (0)1763 246125
E: dolomitesales@syrris.com
W: www.dolomite-centre.com

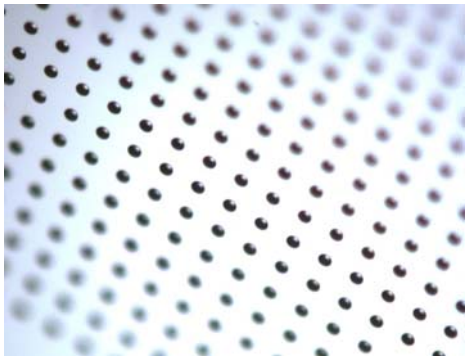
The Dolomite Centre Limited
Registered office: 27 Jarman Way,
Royston, Hertfordshire, SG8 5HW, UK
Company No. 05640084

INFORMATION SHEET

Part name	Mitos Wellplate	Part number	3000218

Description

The Mitos Wellplate has a 40 x 40 array of nano-litre wells. On the standard plate each well has a volume of 0.26nl, and customisation offers alternative volumes. The 40 x 40 array covers an area of 10 x 10mm and is designed to fit onto a microscope slide and under a standard cover slip. The wet etching process gives a surface roughness of < 5nm enabling optical access. Applications include: holding small droplets of reagents or groups of cells or reagent droplets and display technology.



Above: An image of the well matrix captured with a microscope.

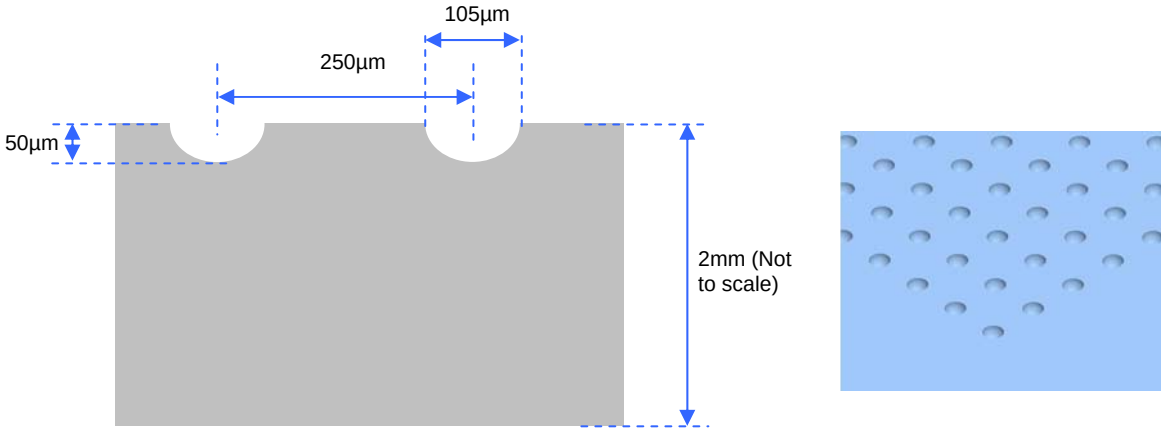
Left: The Mitos Wellplate chip (3000218)

Benefits

- Enables experiments with nanoscale volumes
- Fits onto a microscope slide and under a standard cover slip
- Excellent optical transmission
- Custom sizes available
- Smooth surfaces

	Chip Specification	
1	Chip Dimensions (Length x Width x Depth)	29.8 x 22.3 x 2mm
2	Array Size	40 x 40 wells
3	Array Area	10 x 10mm
4	Well Dimensions (Diameter x Depth)	105 x 50µm Note: Wells are isotropically etched hemispheres (see below)
5	Well Volume	0.26nl
6	Well Spacing	250µm (centre to centre)
7	Surface Roughness	5nm

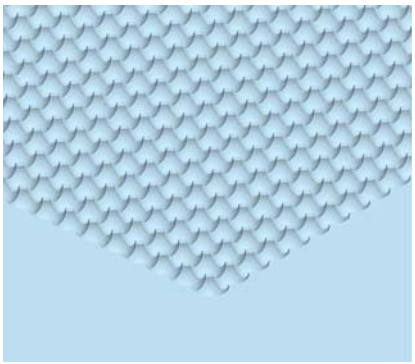
Wellplate cross-sectional profile



A 2D cross-sectional sketch of the Wellplate (left) and a 3D CAD image showing (right).

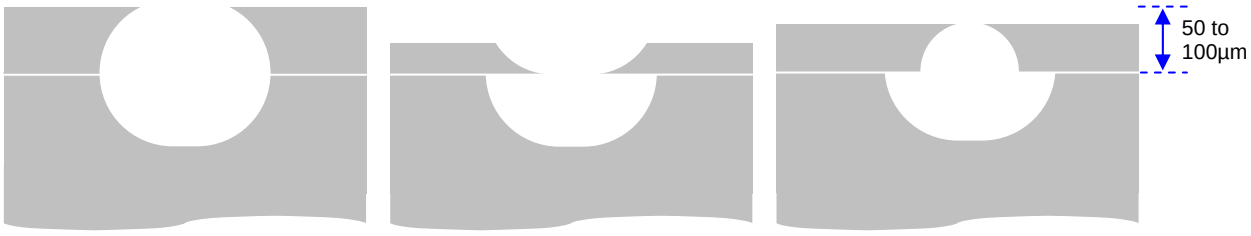
Custom Well Geometry

Wells can be etched to a range of depths or diameters. The well diameter is two times its depth . An example of a possible well geometry is 150µm deep with a diameter of 305µm.



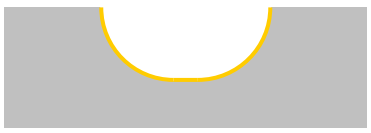
A 3D CAD image of wells that have been etched to a depth of 150µm (diameter = 305µm).

Using two layers, more complex geometry can be formed.



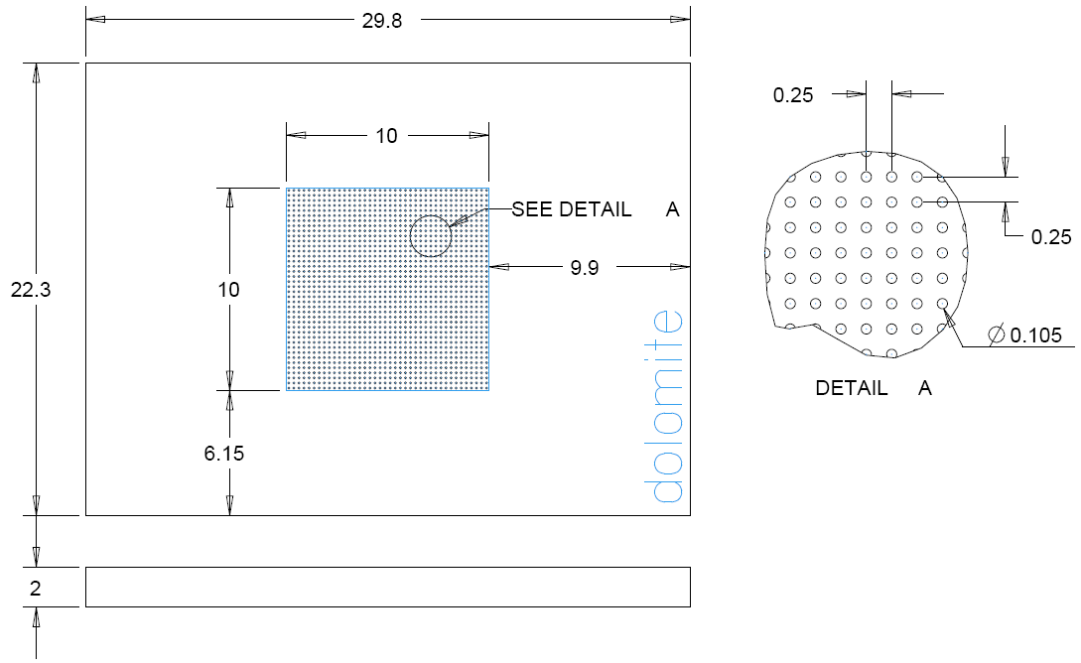
Custom Surface Coatings

The surface of the glass chip is naturally hydrophilic. A hydrophobic coating is available. Other custom coatings such as gold or platinum can be applied to the well surface. Please contact Dolomite with any questions.

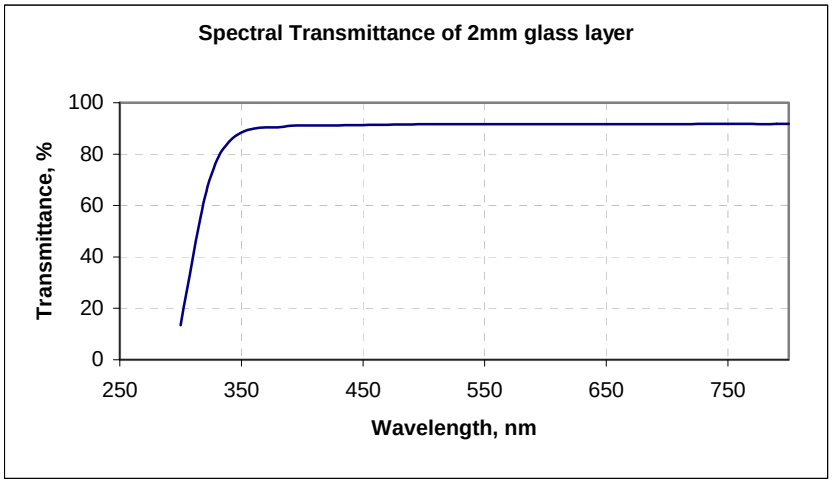


An example of a coating applied to the well surface.

Wellplate Geometry



Optical transmission



If lower wavelengths are required fused silica (quartz) can also be used.