Nanoscribe Photonics Professional GT - Standard recipes

Equipment	Nanoscribe Photonic Professional GT
Synonyms	3D printer
Process Area	LITHOGRAPHY

10x IP-Q

Si is a preferred substrate. Other substrates must have a refractive index of 2.0 or larger. Glass substrates must have ITO or another film with high refractive index deposited on the printing surface.

Observe sample dimensions before loading. For the standard sample holder the sample must be 25 mm × 25 mm and more than 550 m thick, but not thicker than 700 m. Contact the tool trainer before loading different samples.

Application	Parameter	Value
Solid	Hatching (µm)	1.0
	Slicing (µm)	5.0
	Laser power (%)	100
	Scan speed (µm/s)	100000
Shell & scaffold	Hatching (µm)	1.0
	Slicing (µm)	5.0
	Shell laser power (%)	100
	Shell scan speed (µm/s)	100000
	Scaffold laser power (%)	100
	Scaffold scan speed (m/s)	150000

25x IP-S

Si is a preferred substrate. Other substrates must have a refractive index of 1.6 or larger. Glass substrates must have ITO or another film with high refractive index deposited on the printing surface.

Observe sample dimensions before loading. For the standard sample holder the sample must be 25 mm × 25 mm and more than 550 m thick, but not thicker than 700 m. Contact the tool trainer before loading different samples.

Application	Parameter	Value
Standard	Hatching (µm)	0.4
	Slicing (µm)	0.8
	Laser power (%)	50
	Scan speed (µm/s)	50000
Micro-optics*	Hatching (µm)	0.1
	Slicing (µm)	0.104
	Laser power (%)	30
	Scan speed (µm/s)	100000

*Don't use contour lines. Proximity effect will be responsible for producing smooth surfaces.

63x IP-Dip

Glass substrates can be loaded normally, without any extra films. Si can also be used, however the interface finder must be reconfigured to allow for proper operation. Contact the tool trainer if using this setup on Si samples.

Observe sample dimensions before loading. For the standard sample holder the sample must be 25 mm × 25 mm and more than 0.5 mm thick, but not thicker than 0.7 mm. Contact the tool trainer before loading different samples.

Application	Parameter	Value
Standard	Hatching (µm)	0.2
	Slicing (µm)	0.3
	Laser power (%)	35
	Scan speed (µm/s)	10000

25x IP-PDMS

Si is a preferred substrate. Other substrates must have a refractive index of 1.6 or larger. Glass substrates must have ITO or another film with high refractive index deposited on the printing surface.

Observe sample dimensions before loading. For the standard sample holder the sample must be 25 mm × 25 mm and more than 0.5 mm thick, but not thicker than 0.7 mm. Contact the tool trainer before loading different samples.

Application	Parameter	Value
Standard	Hatching (µm)	0.3
	Slicing (µm)	0.3
	Laser power (%)	80
	Scan speed (µm/s)	30000