

Guaranteed specifications

- Efficiency at optimised wavelength (800 nm, 1053 nm, ...)

> 90% average absolute efficiency on TM polarisation, in near-Littrow configuration (10° deviation angle between the incident and diffracted beams)

- Wavefront quality

Typically better than $\lambda/4$ at optimized wavelength (800 nm, 1053 nm,...) in the -1 diffracted order

- Ruled area

Please find the warranted ruled areas according the substrate size:

Size code	Blank size	Warranted ruled area
090	40 x 60 x 10	36 x 56
160	80 x 110 x 16	76 x 106
180	110 x 110 x 16	106 x 106
200	120 x 140 x 20	115 x 135
208	135 x 175 x 30	125 x 165
223	165 x 220 x 30	155 x 210
504	190 x 350 x 40	180 x 340
524	210 x 420 x 40	200 x 410
X51	300 x 485 x 40	290 x 475
930	360 x 565 x 40	340 x 545

Substrate material

Standard substrate material can be fine annealed Pyrex®, fused silica or ULE® depending on application, size and availability.

It may be of interest for high repetition rate laser in order to avoid any temperature effect on laser stability.

Delivered documentation with master pulse compression gratings

For large gratings (165x220 mm and larger):

- Absolute efficiency, measured in nine spots distributed over the clear aperture of the grating
- Interferograms of -1 order and 0 order wavefronts
- A certificate of conformity

For small gratings:

- Absolute efficiency, measured in the center of the grating
- Quality of the -1 order diffracted wavefront
- A certificate of conformity

		80x110x16	110x110x16	120x140x20	135x175x30	165x220x30	190x350x40	210x420x40	300x485x40	360x565x40
1200 l/mm	750-850 nm	524 26 160	524 26 180	524 26 200	524 26 208	524 26 223	524 26 504	524 26 524	524 26 X51	
	1.06 μ m	524 27 160	524 27 180	524 27 200	524 27 208	524 27 223	524 27 504	524 27 524	524 27 X51	
	1.55 μ m	524 33 160	524 33 180	524 33 200	524 33 208	524 33 223	524 33 504	524 33 524	524 33 X51	
1480 l/mm	750-850 nm	524 28 160	524 28 180	524 28 200	524 28 208	524 28 223	524 28 504	524 28 524	524 28 X51	524 28 930
	1.06 μ m	524 29 160	524 29 180	524 29 200	524 29 208	524 29 223	524 29 504	524 29 524	524 29 X51	524 29 930
1740 l/mm	750-850 nm	524 20 160	524 20 180	524 20 200	524 20 208	524 20 223	524 20 504	524 20 524	524 20 X51	524 20 930
	1.06 μ m	524 21 160	524 21 180	524 21 200	524 21 208	524 21 223	524 21 504	524 21 524	524 21 X51	524 21 930