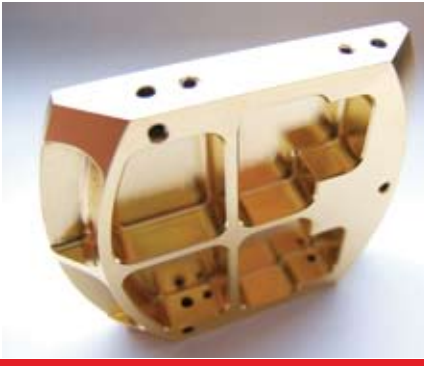


LASER BEAM PRODUCTS

NEWSLETTER April 2012

Volume orders

We offer excellent value for money on large volume orders and regularly ship orders of hundreds of pieces. We can take blanket orders with regular, agreed delivery dates and we also work with customers that use Kanban scheduling systems. We can integrate our deliveries with SAP or other ERP demands.

Our well-established production processes allow us to produce and ship large orders within a few weeks, and we always deliver on time!

Our production schedules allow for rigorous testing and quality control and each part is individually inspected prior to packing. Our packing processes are equally rigorous and ensure that all parts arrive in a perfect condition, uncontaminated by dust or dirt and ready for immediate use or safe storage.

We can also use customer-issued packaging, and customer-issued labelling if required. Electronic copies of individual test results are also available for each part if needed.

We have many customers placing large orders with regular call-offs. For example one OEM CO_2 laser manufacturer places an order based on an estimate of their annual needs and has a weekly call-off for their production and service departments. We also regularly supply hundreds of parts for the manufacture of Er:YAG dental lasers.

Stock parts ready for call-off

How to contact us:

Tel: +44 (0) 1767 600877 Fax: +44 (0)1767 600833
Email: sales@lbp.co.uk Web: www.lbp.co.uk
laserbeamproducts.wordpress.com

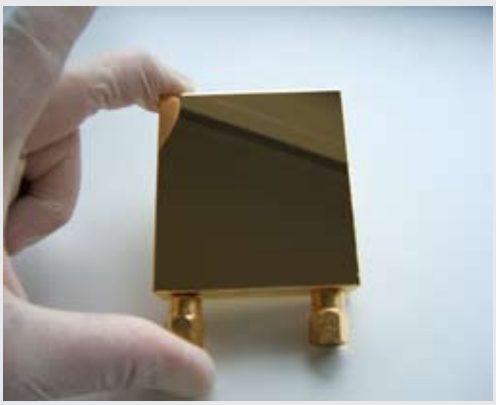
Laser Beam Products Ltd, Units B&C Stratton Park, Dunton Lane, Biggleswade, Bedfordshire SG18 8QS, United Kingdom

DON'T FORGET we can rework your used or damaged mirrors

If you have any used or damaged mirrors tucked away, send them to us and we can often repair them for you to a state that is as good as new.

Simply send us as much information as you can about your mirrors, and we will tell you if we can repair them for you.

We have many customers regularly using this service, contact us if you want more information.



Reworked Mirror

Reflectivity of Molybdenum Mirrors

We can polish solid Molybdenum (Mo) to be used as a laser mirror and because it is exceptionally hard and durable, "Moly" mirrors find uses in industrial monitoring, chemical sensing, spectroscopy etc. We often get asked about the optical properties of Molybdenum. Experimental data is scarce, especially at non standard angles of incidence, and often doesn't take account of polarisation anisotropy.

It is possible to model the optical properties of polished metals, based on the complex refractive index of the metal, and we find there is a very good agreement between the theoretical values and the few data points we can measure in our test lab (using a CO_2 laser calorimeter, and a circular polarised beam).

Below are the calculated values at a few selected wavelengths for 45 degrees incidence. As you can see above 2um wavelength, uncoated bare Mo surfaces are very useful.

Wavelength	%R S pol	%R P pol	Phase Shift deg
633nm HeNe	67	43	11
850nm	66	45	11
1064nm Nd:YAG laser	77	60	6
2.94um Er:YAG laser	98.4	96.8	5
4um	98.7	97.6	5
9um	98.9	97.9	1.6
10.6 CO2 laser	98.9	97.9	1.3
12um	98.9	97.9	1

Theoretical Optical Reflectivity of Molybdenum at 45 Degree incidence

We have the abilty to calculate %R and phase shift for quite a few metals at varying incidences and wavelengths.

For Scientific and Laser mirrors, think Laser Beam Products

We can supply mirrors in many materials including Copper, Aluminium, Silicon, Nickel, Brass and Molybdenum and with a variety of optical coatings including Gold, MaxR, Protected Silver and 1/4 wave phase retarder.

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