PLEIGER

SILICON MIRROR

1. General

Silicon is generally used for laser mirrors and IR windows. The low density is ideal for lightweight optics.

Our mirrors are coated for maximum reflectivity. PLEIGER's manufacturing capabilities include optics for CO2 lasers and optical instruments.

Silicon mirrors are available planar and spherical.

2. Material Properties

Density:	2,33 g/cm^3
Thermal conductivity:	163 W/mK
Heat capacity:	703 J/kg K
Thermal expansion:	2,6 10^{-6} K^{-1}

3. Surfaces

- plano
- spherical

4. Standard Dimensional Tolerances:

Diameter:	+/- 0,1 mm
Thickness:	+/- 0,2 mm
Parallelism:	< 3 arc min
Clear aperture:	90 % of diameter

5. Surface Quality:

Figure:	1/40 wave @ 10,6 µm
S-D:	40-20

6. Coatings

a) Broadband coatings
- Protected Gold
- Protected Silver
- Protected Aluminium

b) Enhanced coatings
- Enhanced Gold
- Enhanced Silver
- Enhanced Aluminium

c) High power laser coatings
- CO2 laser
- YAG/fiber laser line
- fs laser

Pleiger Laseroptik GmbH & Co. KG | Im Hammertal 51 | D-58456 Witten
www.pleiger-laseroptik.de | info@pleiger-laseroptik.de | +49 (2324) 398-406