# Silflex™ MK II

A Versatile Metallic Mirror with over 98% Reflectivity from the Visible to the Far Infrared

Silflex™ MK II is a broadband, high-reflectivity mirror coating offering unprecedented performance and durability. It is virtually insensitive to polarization and angle of incidence, yet maintains more than 98% reflectivity from the visible to the far infrared range.
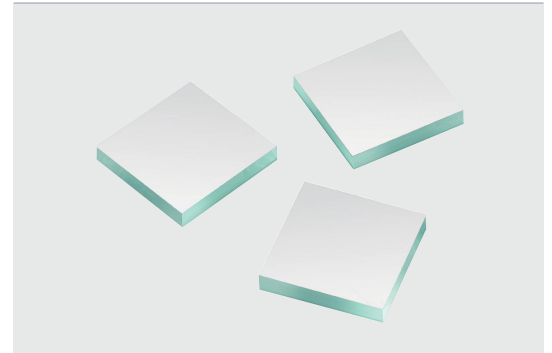
Benefits

- Highest light output from VIS up to IR
- Excellent environmental stability
- Virtually free of polarization effects
- Very low angle of incidence dependency
- No color shift

Applications

- Mirrors for telecommunication
- Optical sensors and instruments
- Laser beamsteering mirrors
- Laser scanner mirrors
- All reflective optics from VIS to IR

Typical reflectance curve of Silflex™ MK II
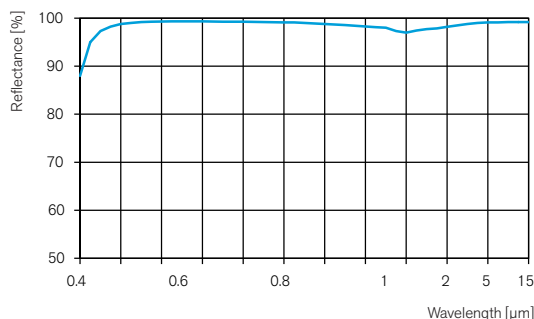
Technical Data

R ≥ 99% avg	450 – 750 nm	45°
R ≥ 99% abs	500 – 700 nm	45°
R ≥ 98% avg	700 – 3500 nm	45°
R ≥ 98% abs	3.5 – 12 µm	45°

Accuracy ±0.5%, AOI 45°, r-pol.

Environmental Resistance and Durability

The coating withstands the following tests on glass substrates

Temperature (MIL-M-13508 C, para. 4.4.4)

5 h each at – 62 °C and + 71 °C

Hardness (MIL-M-13508 C, para. 4.4.5)

50 strokes with cheesecloth

Adherence (MIL-M-13508 C, para. 4.4.6)

Scotch tape test

Humidity (MIL-M-13508 C, para. 4.4.7)

24 h at 49 °C r.h. 95%

Salt Fog (MIL-M-13508 C, para. 4.4.8)

24 h salt spray 4.5% NaCl

Cleaning

Silflex™ MK II withstands immersion in acetone, ethanol, etc. As specified in MIL-C48497, para 4.5.4.2. It can be cleaned with a soft cotton cloth soaked in mild soapy water, ethanol or other non-abrasive substances.

There is also Silflex™ VIS available which is optimized for wavelength from 420 nm up to 680 nm
Silflex™ MK II and Silflex™ VIS are applicable as well on customer supplied substrates