

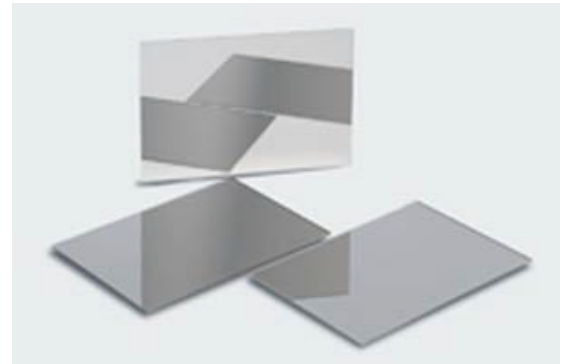


Ocean Thin Films has over 50-years experience in the development and production of high performance thin film coatings, optical components and electro-optical assemblies that enable technologies in the medical device, defense, entertainment and sensing markets. We partner with our customers to create products exhibiting exceptional spectral performance and superior stability in harsh environments -- supporting you from rapid prototyping through high volume production. ■

## SILFLEX™ Mirrors

An Environmentally Stable Silver Mirror with over 98% Reflectivity from the Visible to the Far Infrared

SILFLEX™ 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.



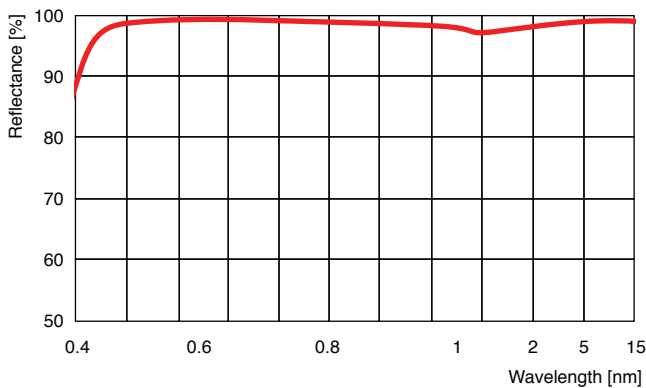
### Benefits

- 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 scanner mirrors
- All reflective optics from VIS to IR
- Fold Mirror for Imaging and projection systems
- Lighting Reflectors

Typical reflectance curve of SILFLEX™ Mirrors



The spectral performance can be customized to optimize performance at any specific wavelength or angle of incident (AOI). This coating can be applied to customer supplied substrates as well.

### Technical Data

R avg.  $\geq$  98% 420 nm - 680 nm 0-45°  
 R avg.  $\geq$  98.0% 0.700-50.0  $\mu$ m 0-45°

### 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™ Mirrors 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 nonabrasive substances.

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