



# Diflex™ Broadband Dielectric Mirrors

## All-Purpose Solution for High Reflectivity Mirrors

Materion Balzers Optics provides the best choice of broadband high reflectivity mirrors. Diflex™ mirrors are characterized by extreme reflectivity, low scattering and a wide acceptance range for the angle of incidence. The consistent and high reflectivity for any polarization covers the wavelength range between 320 nm to 2000 nm. Diflex™ mirror coatings are composed of metall-oxide layers. They withstand harsh environmental conditions and can be cleaned repeatedly.



## Benefits

- Consistent and high reflectivity over the full VIS and NIR spectral range
- $R > 99\%$  for wide range of angle of incidence
- Long-term shift-free spectral performance
- High environmental stability
- Wide flexibility in filter size

## Applications

- High-performance low-loss optical systems
- Laser optics
- Biophotonics

## Technical Data

### Wavelength

Diflex™ 1100 for 350 – 1100 nm

Diflex™ 2000 for 320 – 2000 nm

(customized versions on request)

### Reflectance

$>99\%$  for any polarization

### Flatness

$\lambda/2$

### Angle of Incidence

Standard  $0^\circ - 45^\circ$ , (different AOI on request)

### Surface defect

5 / 1 x 0.16

### Substrate

Fused silica or BK7

### Dimensions

Standard size  $\varnothing 25$  mm,

Thickness 6 mm

Other dimensions on request

### Parallelism

$< 5$  arcmin

### Environmental Stability

Temperature  $-40 \dots +150^\circ\text{C}$

Humidity up to 99 %

Optics Balzers Jena GmbH  
Otto-Eppenstein-Strasse 2  
07745 Jena

Deutschland  
T +49 3641 3529 30  
F +49 3641 3529 35  
info.mbo@materion.com  
www.materion.com/balzersoptics



Diflex™ Broadband Dielectric Mirror 350 – 1100 nm

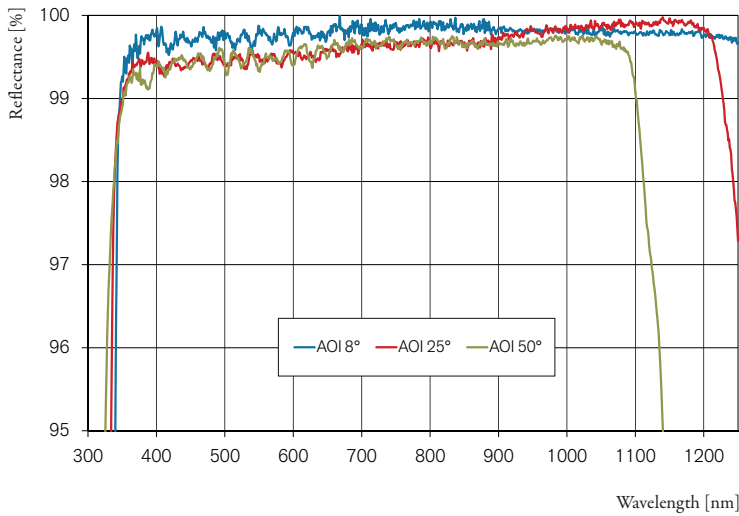


Fig.1: Measured spectral reflectance of unpolared light, AOI 8°, 25°, 50°

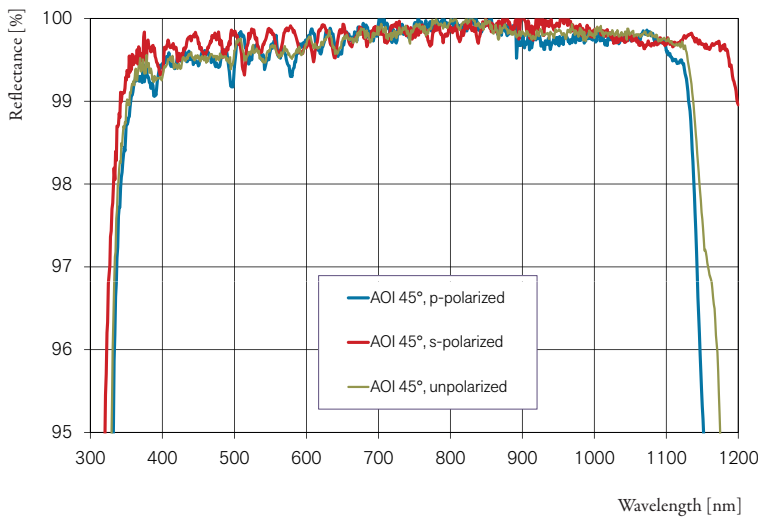


Fig.2: Measured spectral reflectance of p-, s- and unpolared light, AOI 45°

Diflex™ Broadband Dielectric Mirror 320 – 2000 nm

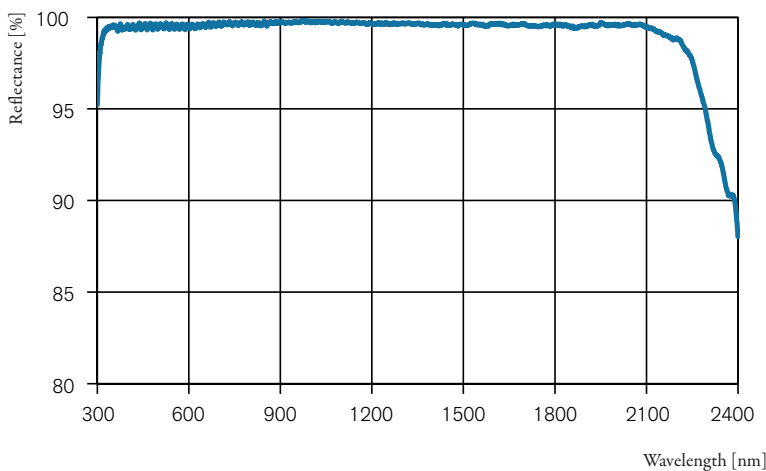


Fig.3: Measured spectral reflectance, AOI 8°

Optics Balzers Jena GmbH  
Otto-Eppenstein-Strasse 2  
07745 Jena

Deutschland  
T +49 3641 3529 30  
F +49 3641 3529 35  
info.mbo@materion.com  
www.materion.com/balzersoptics