

Mirrors

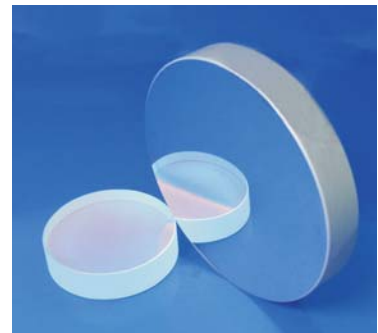
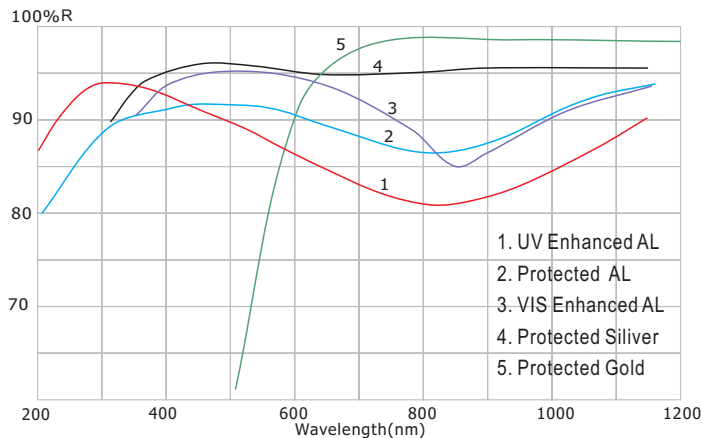
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Metallic Mirrors

Metallic coatings are very broadband and relatively insensitive to incidence angle. They offer good performance at a low price. They are mostly commonly used. But metallic reflective coatings are delicate, only recommended for low power application and require care during cleaning.

There are three commonly used Metallic coatings: Aluminum, Silver, Gold.

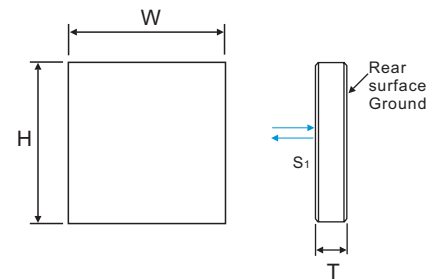
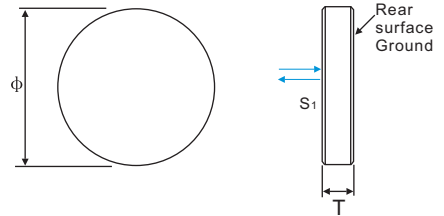
- 1, Protected Aluminum R_{avg} > 87% from 400nm to 800nm
- 2, VIS Enhanced Aluminum R_{avg} > 93% from 450nm to 750nm
- 3, UV Enhanced Aluminum R_{avg} > 86% from 250nm to 400 nm
- 4, Protected Silver R_{avg} > 95% from 400nm to 20 μ m
- 5, Protected Gold R_{avg} > 98% from 650nm to 16 μ m



Substrate Materials: N-BK7, UV Fused silica, Borosilicate, Pyrex

General Specifications

Dimensional tolerance	$\pm 0.1\text{mm}$
Surface quality	80-50 S/D
Flatness	$\lambda/4$ @ 633nm
Bevel	Protective bevel
Front surface	Polished and Metallic coating
Rear surface	Fine ground



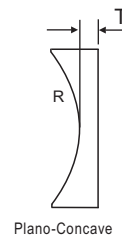
Typical Diameter(mm)

ϕ 5.0	ϕ 10.0	ϕ 12.7	ϕ 15.0	ϕ 20.0
ϕ 25.4	ϕ 30.0	ϕ 38.1	ϕ 50.8	ϕ 76.2

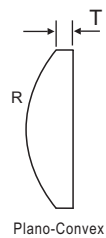
Typical Thickness(mm)

0.5	1.0	1.5	2.0	3.0
4.0	5.0	6.0	8.0	10.0

other sizes and shapes are available.



Plano-Concave



Plano-Convex

See "Lenses-Chapter" for the size of Plano-Concave or Plano-convex shape

How to order metallic mirrors? Example:

Substrate: **N-BK7**
 Diameter: **$\phi 25.4 \pm 0.1\text{mm}$**
 Thickness: **5.0mm**
 Coating: **Protected Aluminum**

Price on request

Custom Design

Volume Discount

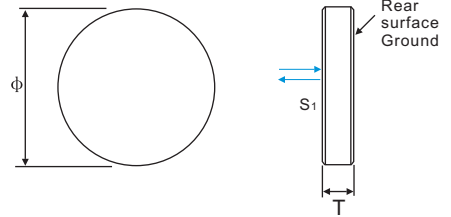
Mirrors

(High energy reflective dielectric)

Dielectric coating mirrors provide excellent performance over a specific wavelength range. The maximum reflectivity can be up to 99.9% at specific wavelength and angle of incidence. Dielectric coating exhibit superior durability and damage resistance.

Substrate Materials: N-BK7, UV Fused silica

General Specifications	Commercial Grade	Laser Grade
Dimensional tolerance	± 0.1mm	± 0.1mm
Surface quality	60-40 S/D	10-5 S/D
Flatness	$\lambda/4$ @ 633nm	$\lambda/8$ @ 633nm
Bevel	Protective bevel	Protective bevel

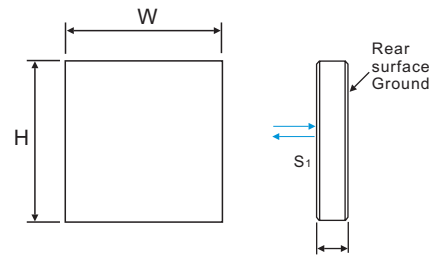


Typical Diameter(mm)

φ 5.0	φ 10.0	φ 12.7	φ 15.0	φ 20.0
φ 25.4	φ 30.0	φ 38.1	φ 50.8	φ 76.2

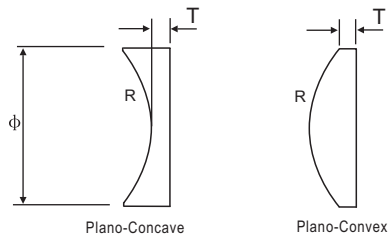
Typical Thickness(mm)

0.5	1.0	1.5	2.0	3.0
4.0	5.0	6.0	8.0	10.0



other sizes and shapes are available.

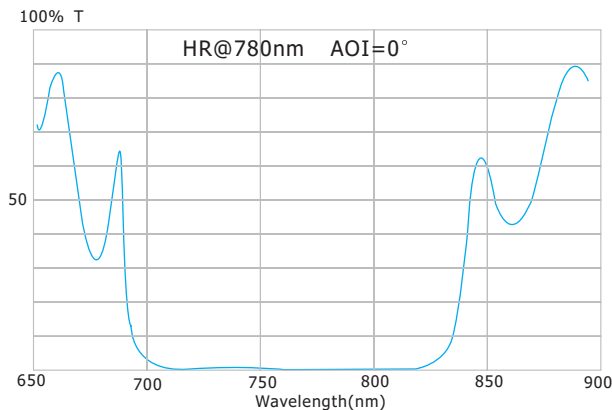
Front surface(S1)	HR @specific wavelength
Rear surface	None
Angle of incident	0° or 45°



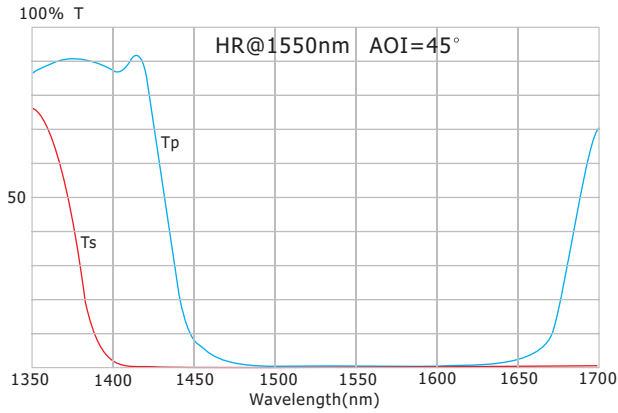
Typical High reflective coatings:

① Laser line HR Coating, Normal incidence (0°)

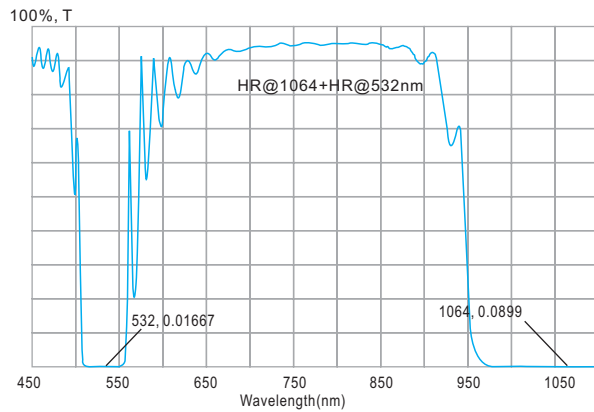
See "Lenses-Chapter" for the size of Plano-Concave or Plano-convex shape



② Laser line HR Coating, 45° Incidence



③ Dual Wavelength HR Coating, 0° Incidence



How to order Mirrors? Example:

Substrate Material: **N-BK7**
 Diameter: **φ 25.4mm, Flat**
 Thickness: **3.0mm**
 Surface quality: **20-10S/D**
 Flatness: **λ / 8 @633nm**
 Coating: **HR@1064nm, R>99.8%**
 AOI: **0°**

Price on request

Custom Design

Volume Discount

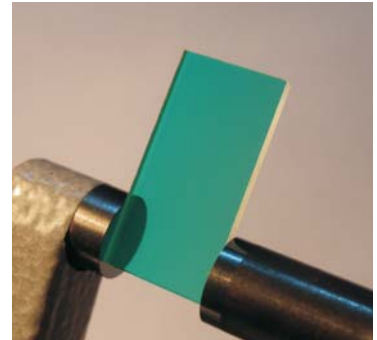
Dichroic Mirrors

(Also called Filters)

Substrates: Refer to previous page.

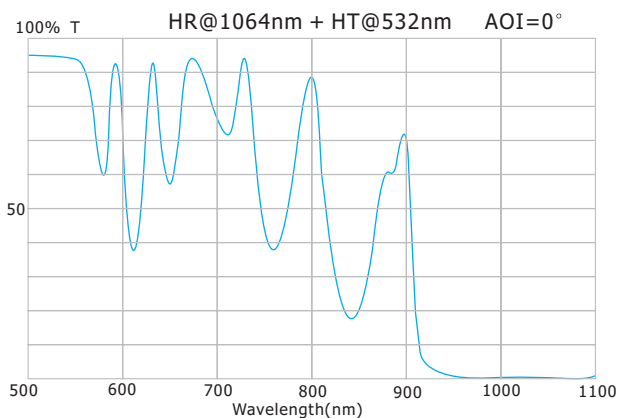
Coating

One surface(S1)	HR @wavelength-1 + HT @wavelength-2
The other surface(S2)	AR @wavelength-2
Angle of incident	0° or 45°

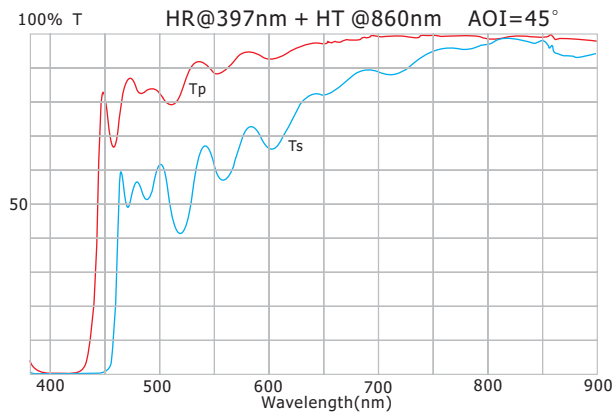


Typical coatings:

① Short wavelength pass



② Long wavelength pass



How to order Dichroic Mirrors? Example:

Substrate Material: **N-BK7**
 Diameter: **φ 12.7mm, Flat**
 Thickness: **3.0mm**
 Surface quality: **20-10S/D**
 Flatness: **λ/4 @633nm**
 Coating: **HR R>99.8% @1064nm + HT T>95% @ 532nm**
 AOI: **0°**

- Price on request
- Custom Design
- Volume Discount