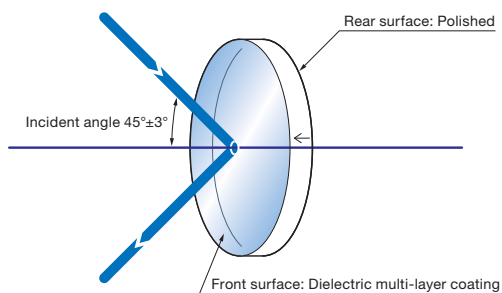


Ultra Broadband Dielectric Mirrors are manufactured using all dielectric multi-layer coatings of alternating high and low index layers. These are specifically designed for use at 45 degrees angle of incidence. The mirrors are offered for use in applications where high-reflection over a broad wavelength range is required.

- Visible, near infrared and multiple wavelengths are covered with a single mirror.
- These mirrors have many advantages over a metal mirror including very little deterioration with age and that it is durable and easy to clean and maintain.

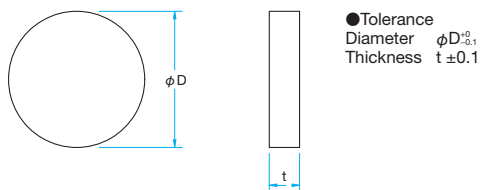


Schematic



Outline Drawing

(in mm)



Specifications

Material	BK7
Coating	Dielectric multi-layer coating
Incident angle	45°±3°
Surface Flatness	λ/10
Parallelism	<3'
Surface Quality (Scratch-Dig)	40-20
Clear aperture	90% of Actual Aperture
Rear Surface	Polished

Guide

- ▶ Please consult our Sales Division for assistance in your selection and for customized products. (customized on outer diameter, wavelength characteristic, etc.) Please use the inquiry sheet.
- ▶ Also available are our surface flatness guarantee (HTFM) mirrors with accuracy guarantee after surface coating.

Attention

- ▶ Reflectance of dielectric mirrors will vary according to the polarization of the input beams.
- ▶ The un-coated rear surface of the mirror is polished and the arrow on the side of the substrate points towards the coated surface. Reflectance of laser line mirrors are different according to the polarization of input beams. S-Polarization has high reflectance with a wide reflective bandwidth compared with P-Polarization.
- ▶ The reflectance specification listed is at random polarization or (P-Polarization reflectance + S-Polarization reflectance) / 2.

Specifications

Part Number	Wavelength Range [nm]	Diameter φD [mm]	Thickness t [mm]	Reflectance [%]	Laser Damage Threshold* [J/cm ²]
TFMS-25.4C05-2/4	245 – 400	φ25.4	5	> Average 97	0.5
TFMS-30C05-2/4	245 – 400	φ30	5	> Average 97	0.5
TFMS-25.4C05-2/7	245 – 700	φ25.4	5	> Average 97	0.5
TFMS-30C05-2/7	245 – 700	φ30	5	> Average 97	0.5
TFMS-25.4C05-4/11	400 – 1100	φ25.4	5	> Average 98	0.5
TFMS-30C05-4/11	400 – 1100	φ30	5	> Average 98	0.5
TFMS-50C08-4/11	400 – 1100	φ50	8	> Average 98	0.5
TFMS-25.4C05-4/20	400 – 2000	φ25.4	5	> Average 98	0.5
TFMS-30C05-4/20	400 – 2000	φ30	5	> Average 98	0.5
TFMS-50C08-4/20	400 – 2000	φ50	8	> Average 98	0.5
TFMS-25.4C05-3/20	300 – 2000	φ25.4	5	> Average 97	0.5
TFMS-30C05-3/20	300 – 2000	φ30	5	> Average 97	0.5
TFMS-50C08-3/20	300 – 2000	φ50	8	> Average 97	0.5

* Laser pulse width 10ns, wavelength 532nm, repetition frequency 20Hz

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Femtosecond Laser

Frameless

Accuracy Guarantee

High Power

Ultra Broadband

Dielectric Coating

Aluminum Coating

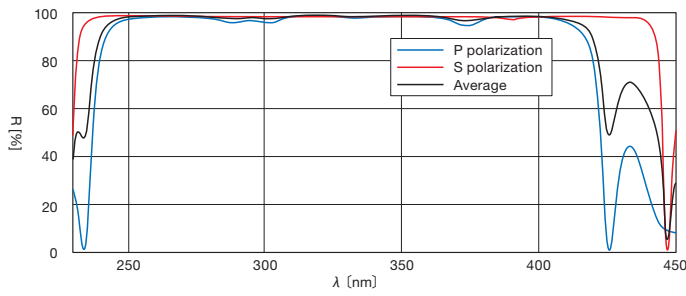
Gold Coating



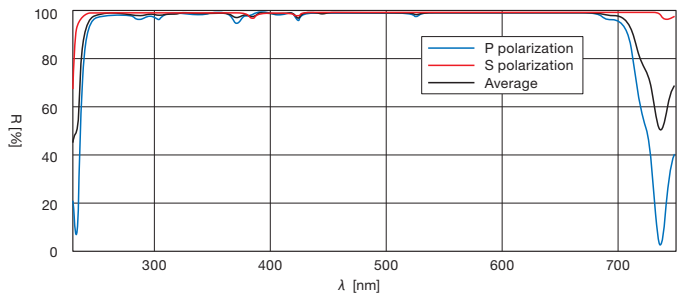
Typical Reflectance Data

R: Reflectance

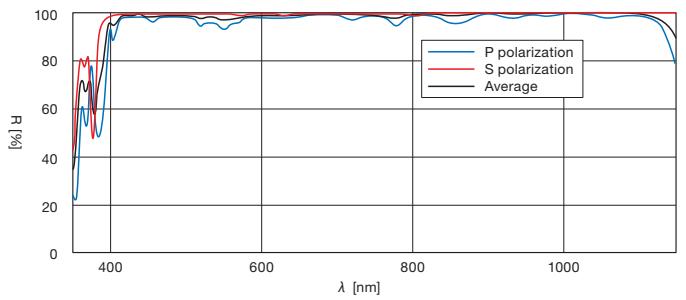
TFMS-2/4



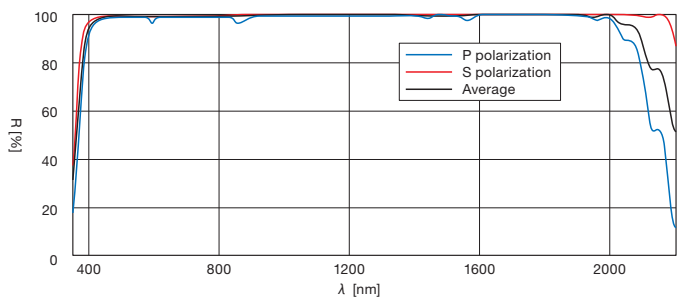
TFMS-2/7



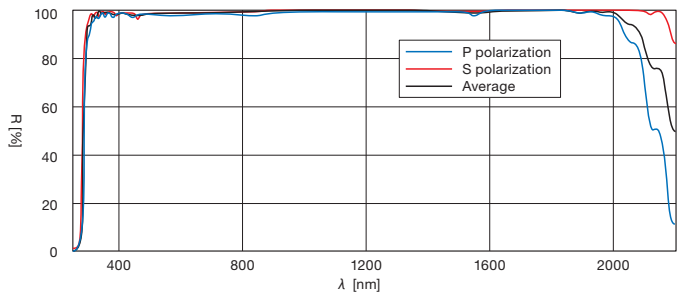
TFMS-4/11



TFMS-4/20



TFMS-3/20



Compatible Optic Mounts

MHG-HS25-NL, -HS30-NL / MHG-MP50-NL / MHAN-25.4S, -30S, -50S

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