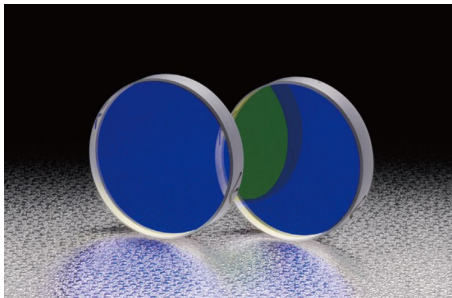


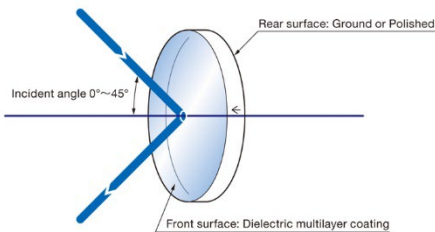
0-45° Wide Angle Broadband Dielectric Mirrors

This high reflective mirror covers a broad range of wavelengths in the visible, UV, and IR, and can be used for any angle of incidence between 0° and 45°. The mirrors can be commonly used in the incident angle range of 0° to 45°, making them highly versatile for use in multi-wavelength lasers or spectroscopic experiments.

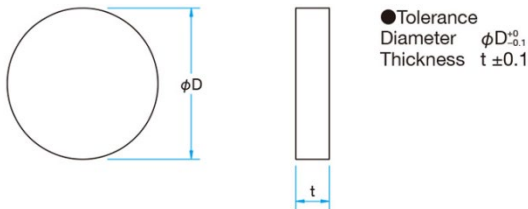
- Very high reflectivity can be obtained between 0 degree to 45 degrees angle of incidence.
- It provides a high reflectance with limited variation over a broad range of wavelengths.
- The dielectric multilayer coating makes the mirror surface highly resistant to scratches and allows for wiping for cleaning.
- There is no absorption from the coating, limited deterioration over time, and shows excellent resistance to continuous laser irradiation.



Outline Drawing



Schematic



Common Specifications

Material	Synthetic fused silica
Coating	Dielectric multilayer coating
Incident angle	0°~45°
Surface flatness	$\lambda/10$
Parallelism	<3'
Reflectance	Rmean > Average 99%
Clear aperture	90% of the diameter
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.

Attention

- ▶ Reflectance wavelength characteristics of dielectric multilayer coating vary depending on the polarization state of the incident beam. Reflectance of P-polarized light is lower than that of the S-polarized light, and the reflection range will also be narrower.
- ▶ When used not in adaptive wavelength, reflectance may be lower.
- ▶ If a mirror is used other than normal incidence, wavelength reflectance characteristics also vary depending on the polarization condition.
- ▶ The reflectance characteristics of the 45 degrees angle of incidence listed are the average value of the reflectance of P-polarized light and S-polarized light.

Specifications

Part Number	Diameter ϕD [mm]	Thickness t [mm]	Wavelength Range [nm]	Surface Quality (Scratch-Dig)	Laser Damage Threshold* [J/cm ²]
TFVMQ-12.7C05-3/4	$\phi 12.7$	5	350-450nm	20-10	0.5J/cm ²
TFVMQ-25.4C05-3/4	$\phi 25.4$	5			
TFVMQ-50.8C08-3/4	$\phi 50.8$	8			
TFVMQ-12.7C05-4/7	$\phi 12.7$	5	400-750nm	20-10	0.5J/cm ²
TFVMQ-25.4C05-4/7	$\phi 25.4$	5			
TFVMQ-50.8C08-4/7	$\phi 50.8$	8			
TFVMQ-12.7C05-7/11	$\phi 12.7$	5	700-1100nm	40-20	1J/cm ²
TFVMQ-25.4C05-7/11	$\phi 25.4$	5			
TFVMQ-50.8C08-7/11	$\phi 50.8$	8			
TFVMQ-12.7C05-10/16	$\phi 12.7$	5	1000-1600nm	40-20	2.5J/cm ²
TFVMQ-25.4C05-10/16	$\phi 25.4$	5			
TFVMQ-50.8C08-10/16	$\phi 50.8$	8			

* Laser pulse width 10ns, repetition frequency 20Hz



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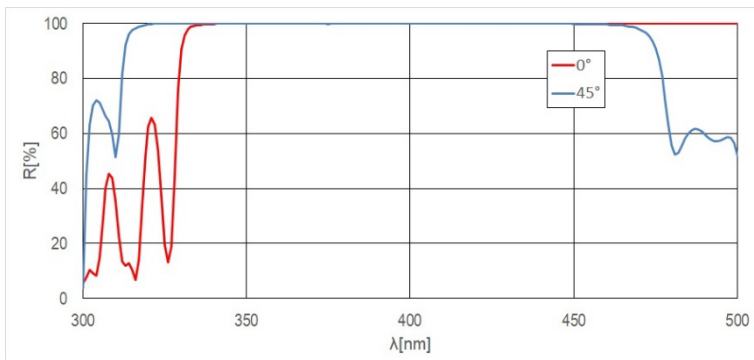
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Typical Reflectance Data

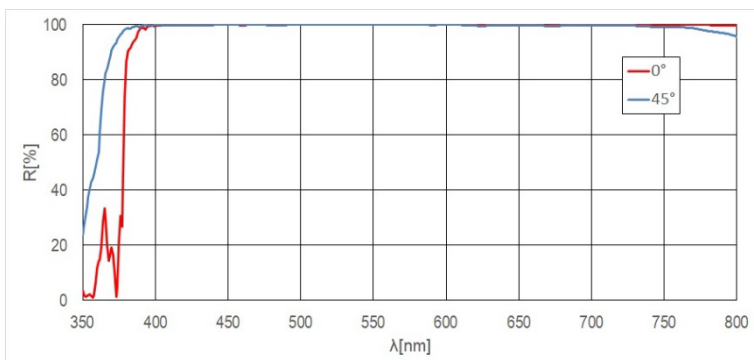
R: Reflectance

45° is average value of P polarization and S polarization

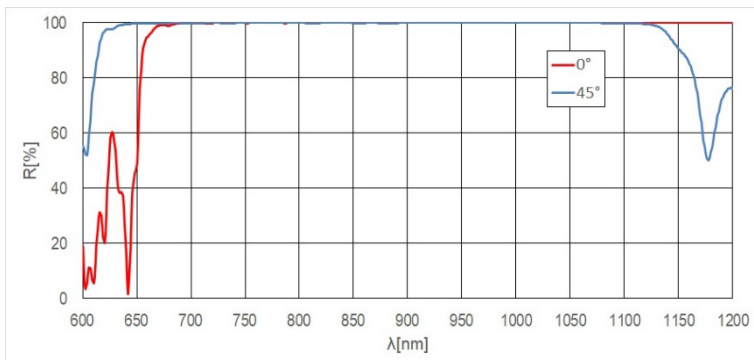
TFVMQ-3/4



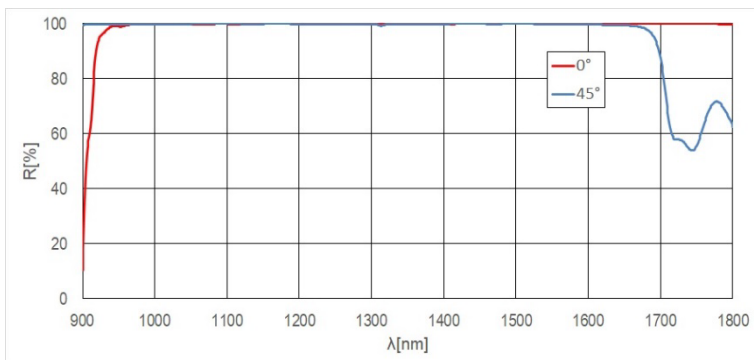
TFVMQ-4/7



TFVMQ-7/11



TFVMQ-10/16



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