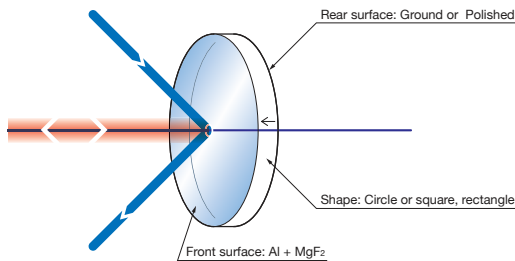


An economic general use mirror suitable for an illumination optical system and a simple experiments. It has the same reflectance and surface flatness as our aluminum mirrors (TFA) designed for use with a laser, but lower surface quality.

- The dirt on the surface of the mirror can be wiped because the scratch-resistant protection is coated on the aluminum coating.
- Reflectance of less variation can be obtained in a wide wavelength range from visible to near-infrared.



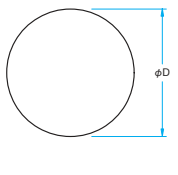
Schematic



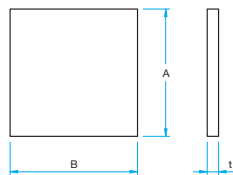
Outline Drawing

(in mm)

● Circle



● Square / Rectangle



- Tolerance
Diameter $\phi D_{-0.1}^{+0}$
Length $A_{-0.1}^{+0}$, $B_{-0.1}^{+0}$
Thickness $t \pm 0.1$

Circle

Part Number	Diameter ϕD [mm]	Thickness t [mm]	Surface flatness	Rear surface
S-TFA-10C03-10	$\phi 10$	3	$\lambda/10$	Ground
S-TFA-10C05-10	$\phi 10$	5	$\lambda/10$	Ground
S-TFA-15C03-10	$\phi 15$	3	$\lambda/10$	Ground
S-TFA-15C05-10	$\phi 15$	5	$\lambda/10$	Ground
S-TFA-20C03-10	$\phi 20$	3	$\lambda/10$	Ground
S-TFA-20C05-10	$\phi 20$	5	$\lambda/10$	Ground
S-TFA-25C05-1	$\phi 25$	5	λ	Polished
S-TFA-25C05-10	$\phi 25$	5	$\lambda/10$	Polished
S-TFA-30C05-1	$\phi 30$	5	λ	Polished
S-TFA-30C05-10	$\phi 30$	5	$\lambda/10$	Polished
S-TFA-40C06-1	$\phi 40$	6	λ	Polished
S-TFA-40C06-10	$\phi 40$	6	$\lambda/10$	Polished
S-TFA-50C08-1	$\phi 50$	8	λ	Polished
S-TFA-50C08-10	$\phi 50$	8	$\lambda/10$	Polished

Specifications

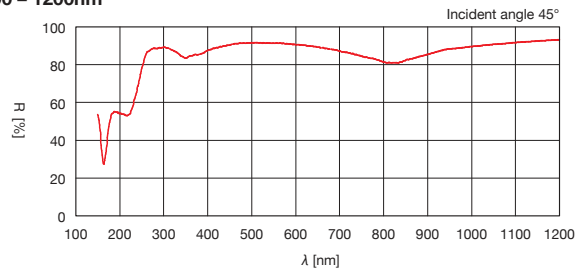
Material	BK7
Coating	Al + MgF ₂
Parallelism	<3'
Incident angle	45°
Laser Damage Threshold	0.25J/cm ² (pulse width 10ns, repetition frequency 20Hz)
Surface Quality (Scratch-Dig)	60-40
Clear aperture	90% of actual aperture or circle or ellipse that contacts 90% square of dimension

Attention

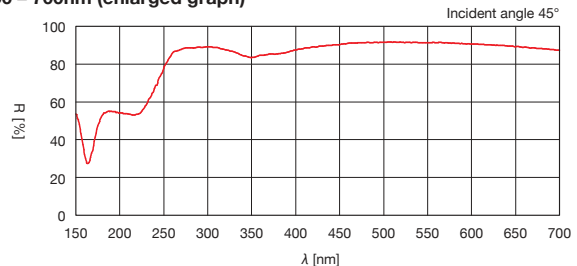
- ▶ When a laser is transmitted with multiple mirrors installed, there will be loss of a large amount of light caused by the absorption of the aluminum coating. Please switch to dielectric multi-layer mirrors (TFM) for improved performance.
- ▶ Reflectance specification is represented by the average of the reflectance of P polarized light and S polarized light. Reflectance may vary depending on the polarization state of the incident beam.

Typical Reflectance Data R: Reflectance

100 - 1200nm



150 - 700nm (enlarged graph)



Square / Rectangle

Part Number	Length A × B [mm]	Thickness t [mm]	Surface flatness	Rear surface
S-TFA-10S03-10	10×10	3	$\lambda/10$	Ground
S-TFA-15S03-10	15×15	3	$\lambda/10$	Ground
S-TFA-20S03-10	20×20	3	$\lambda/10$	Ground
S-TFA-20S05-4	20×20	5	$\lambda/4$	Ground
S-TFA-20S05-10	20×20	5	$\lambda/10$	Ground
S-TFA-25S05-10	25×25	5	$\lambda/10$	Ground
S-TFA-30S05-1	30×30	5	λ	Ground
S-TFA-30S05-10	30×30	5	$\lambda/10$	Ground
S-TFA-1015R03-10	10×15	3	$\lambda/10$	Ground
S-TFA-1015R05-10	10×15	5	$\lambda/10$	Ground
S-TFA-1525R03-10	15×25	3	$\lambda/10$	Ground
S-TFA-1525R05-10	15×25	5	$\lambda/10$	Ground
S-TFA-2030R05-10	20×30	5	$\lambda/10$	Ground
S-TFA-2535R05-10	25×35	5	$\lambda/10$	Ground

Compatible Optic Mounts

MHG-HS25-NL, -HS30-NL / MHG-MP50-NL / MAD-30-10 + MHL-30S / BSHL-15-2 / MHF-20 / MHAN-40S