

Spherical Lenses

Cylindrical Lenses

Lens Kits

Achromatic Doublets

Multi-Element

Micro Optics

Mirrors

Prisms

Substrates & Windows

Beamsplitters

Polarizers

Filter & Apertures

Metallized Mirrors, Square & Rectangular

- Large cross-sections at 45 degree angle of incidence
- Aluminum overcoated with MgF_2 for high durability
- Easy for OEM mounting
- Available with $\lambda/4$, $\lambda/10$, and $\lambda/20$ surface flatness
- Synthetic Fused Silica available for high thermal stability



While the round mirrors fit perfectly in the Mirror Mounts described on pages 247-267, these square and rectangular mirrors are often very convenient to mount in prototype and experimental setups. The rectangular shapes are most useful in beam steering applications at 45 degrees.

These square and rectangular metallized mirrors are identical to the round metallized mirrors described on the preceding three pages. The rectangular shapes are useful at 45 degrees since they present a more nearly square cross section to the beam.

The reflectance curve for these mirrors may be found on page 130. As with the round metallized mirrors there are three levels of flatness available: $\lambda/4$, $\lambda/10$ and $\lambda/20$. The $\lambda/20$ mirrors have a synthetic quartz substrate for thermal stability.

A selection of sizes are offered as standard. Other sizes can be supplied on request. Please call. Mirrors up to 1 inch square have a ground rear surface but all other mirrors are polished on the rear face.

Specifications & Tolerances

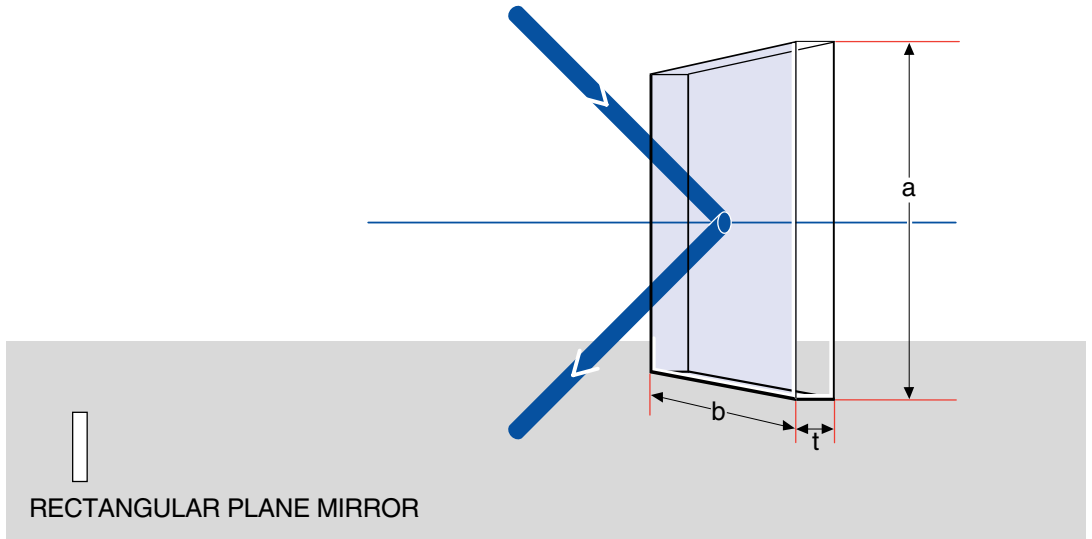
Surface flatness: $\lambda/4$, $\lambda/10$, $\lambda/20$
 Surface quality: 40-20
 Parallelism: ≤ 3 arcmin
 Clear aperture: $>90\%$ diameter
 Bevel: $0.2\text{mm} \times 45^\circ$ typical
 Durability: to MIL-C-675
 Reflectance: $R > 88\%$ (350-1550nm)

Dimensions: $+0$, -0.1mm ,
 except $100 \times 100\text{mm}$ $+0$, -0.2mm
 Thickness: $\pm 0.1\text{mm}$,
 except $100 \times 100\text{mm}$ $\pm 0.2\text{mm}$
 Laser damage threshold: $0.4\text{J}/\text{cm}^2$ for 532nm
 @ 10ns pulse (measured)

ORDERING
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OPTICAL COMPONENTS

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RECTANGULAR PLANE MIRROR

Metallized Mirrors, Square & Rectangular

Flatness	Dimensions (inches) a x b	Dimensions (mm) a x b	Thickness, t (mm)	Material	Price	PART NUMBER
$\lambda/4$	0.39 x 0.59	10.0 x 15.0	5.0	BK7		033-3330
$\lambda/4$	0.50 x 0.50	12.7 x 12.7	3.0	BK7		033-2260
$\lambda/4$	0.79 x 0.79	20.0 x 20.0	5.0	BK7		033-2280
$\lambda/4$	0.98 x 0.98	25.0 x 25.0	5.0	BK7		033-2330
$\lambda/4$	0.98 x 1.38	25.0 x 35.0	5.0	BK7		033-3340
$\lambda/4$	1.18 x 1.18	30.0 x 30.0	5.0	BK7		033-2340
$\lambda/4$	1.57 x 1.57	40.0 x 40.0	6.0	BK7		033-2350
$\lambda/4$	1.57 x 1.97	40.0 x 50.0	8.0	BK7		033-3350
$\lambda/4$	1.97 x 1.97	50.0 x 50.0	8.0	BK7		033-2360
$\lambda/4$	3.94 x 3.94	100.0 x 100.0	15.0	BK7		033-2370
$\lambda/10$	0.39 x 0.39	10.0 x 10.0	3.0	BK7		033-2390
$\lambda/10$	0.39 x 0.39	10.0 x 10.0	5.0	BK7		033-2380
$\lambda/10$	0.39 x 0.59	10.0 x 15.0	5.0	BK7		033-3370
$\lambda/10$	0.50 x 0.50	12.7 x 12.7	3.0	BK7		033-2420
$\lambda/10$	0.59 x 0.59	15.0 x 15.0	3.0	BK7		033-2440
$\lambda/10$	0.59 x 0.59	15.0 x 15.0	5.0	BK7		033-2450
$\lambda/10$	0.59 x 0.98	15.0 x 25.0	5.0	BK7		033-3375
$\lambda/10$	0.79 x 0.79	20.0 x 20.0	3.0	BK7		033-2470
$\lambda/10$	0.79 x 0.79	20.0 x 20.0	5.0	BK7		033-2460
$\lambda/10$	0.98 x 0.98	25.0 x 25.0	5.0	BK7		033-2490
$\lambda/10$	0.98 x 1.38	25.0 x 35.0	5.0	BK7		033-3380
$\lambda/10$	1.18 x 1.18	30.0 x 30.0	5.0	BK7		033-2550
$\lambda/10$	1.57 x 1.97	40.0 x 50.0	8.0	Pyrex		033-3390
$\lambda/10$	1.97 x 1.97	50.0 x 50.0	8.0	Pyrex		033-2580
$\lambda/10$	3.94 x 3.94	100.0 x 100.0	15.0	Pyrex		033-2590
$\lambda/20$	0.98 x 0.98	25.0 x 25.0	6.0	Fused Silica		033-2680

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More sizes are available. Please call if you don't see the size you need.