

Metallic Mirrors

Metallic mirrors with gold, protected-silver or aluminium coatings (UV-enhanced or protected aluminium) on K9 or fused-silica substrates. Applications: digital equipment, measuring instruments and laser medical equipment. Other mirror types can be offered on request.

Coating types

Coating	Description
Gold-coated	In the infrared spectral region, gold film has higher reflectivity and better chemical stability than silver and aluminium. After environmental testing, gold film keeps good optical properties and good adhesion of the film layer in harsh environments. High-performance coated gold mirrors with firm film.
Silver-coated	Protected silver coating mirrors with good adhesion of the film layer and good anti-friction.
Aluminium-coated	UV-enhanced aluminium and protected aluminium. Because bare aluminium is extremely delicate and susceptible to damage, a protective overcoat is layered over the aluminium to prolong the life of the mirror.

Handling notes

Coating	Note
Gold-coated	The mechanical strength of gold film is very low: clean the surface with a compressed-gas duster only, with great care. Wear laser protective goggles when checking the light path and adjusting the optical axis.
Silver-coated	For long-term storage, use a deoxidiser to prevent oxidation of the silver film.
Aluminium-coated	Aluminium mirrors without a protective film are easily damaged and the film oxidises. Do not wipe the mirror with paper or cloth; use an antioxidant to prevent oxidation of the aluminium oxide layer for long-term storage. Where several mirrors are used in series, consider multi-layer dielectric reflectors instead of aluminium.

Specification

Parameter	Value
Material	K9, fused silica
Product application	Digital equipment, measuring instruments and laser medical equipment