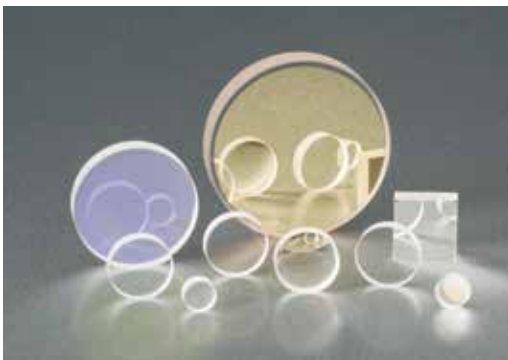


MIRRORS



Our mirrors are available in partial or high reflecting configurations, narrow or large bandwidth, and are designed for specific laser technology including, but not limited to: excimer, gas, Nd:YAG, Nd:YLF, laser diode, diode-pumped solid-state; and Ti:Sapphire lasers. With an impressive complement of reflective coatings and substrates, our mirrors can be utilized in the deep UV, all the way up to the infrared with either dielectric or metallic coatings. Our dielectric mirrors are designed for high powered applications utilizing laser grade substrates.

Don't see a mirror configuration that meets your needs? We also offer an extensive range of mirror substrates that can be ordered in production quantities with a CVI specific coating.

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Don't see exactly what you are looking for?

CVI Laser Optics specializes in prototype to volume production manufacturing!

Give us a call and we will be honored to assist you with your custom needs.

NOTES:



EXCIMER LASER MIRRORS: ARF, KRF



Specifications

Product Code: **ARF, KRF**

Substrate Material:

Standard Grade Corning 7980 1-D (Fused Silica)

Diameter Tolerance: +0/-0.25mm

Thickness Tolerance: ±0.25mm

Wedge: ≤ 5 arc minutes

Chamfer:

Ø ≤ 50.8mm: 0.35mm leg width at 45° nominal

Ø > 50.8mm: 0.85mm leg width at 45° nominal

S1 Surface Figure: < λ/10 p-v at 633nm before coating; after coating on select substrates

S1 Surface Quality: 10-5 scratch-dig per MIL-PRF 13830b (at 100W)

S2 Surface Quality: Commercial polish

Clear Aperture: ≥ 85% of central diameter

Adhesion and Durability: Per MIL-C-48497a

Angle of Incidence: 45° only

Reflectance (at 193nm):

R ≥ 96.0% at 45°, UNP

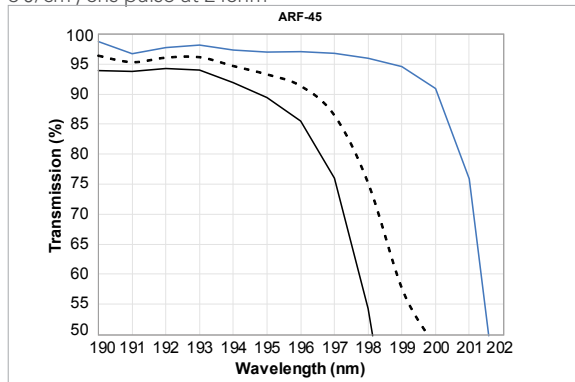
Reflectance (at 248nm):

R > 99.0% at 45°, UNP

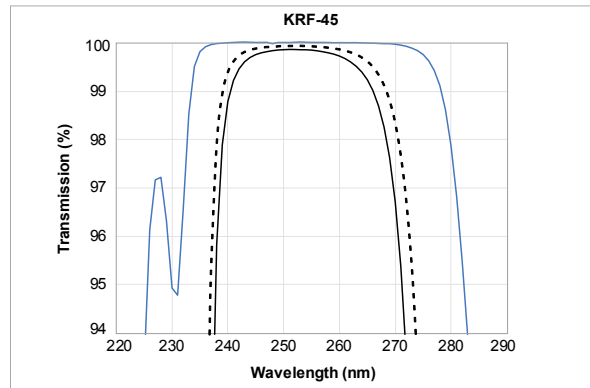
Damage Threshold:

1 J/cm², 20ns pulse at 193nm

3 J/cm², 8ns pulse at 248nm



Reflection vs wavelength of 193nm excimer laser mirror for 0° and 45° designs. Minimum reflectance > 97% at 0°, > 96.0% at 45° UNP, > 94.0% at 45° P-Pol, and > 97.0% at 45° S-Pol



Reflection vs wavelength of 248nm excimer laser mirror for 0° and 45° designs. Minimum reflectance > 99.5% at 0° and > 99.0% at 45° UNP

P-POL: — UNP: - - - S-POL: — 0°: - - - -

We offer an extensive range of high-quality excimer laser mirrors specifically designed for use with today's high-energy excimer laser applications. Our unique coatings have continued to outperform the industry standards and provide our customers with optics for the most demanding laser environments.

► Contact an applications engineer for OEM options

BUILD YOUR PART NUMBER

STEP-1	STEP-2	STEP-3
PRODUCT CODE	SIZE CODE	ANGLE OF INCIDENCE
ARF	1537	45
EXAMPLE: ARF-1537-45		

CHOOSE FROM THE OPTIONS BELOW.

1. PRODUCT CODE	LASER TYPE	WAVELENGTH (nm)
ARF	ArF Solid State Excimer Laser	193
KRF	KrF Solid State Excimer Laser	248

2. SIZE CODE	DIAMETER (mm)	THICKNESS (mm)
1025	25.4	6.35
1537	38.1	9.53
2037	50.0	9.53
3050	76.2	12.7

3. ANGLE OF INCIDENCE in Degrees	
45	45 degrees