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TECHSPEC®

50.8mm Dia x 101.6mm FL, 1064nm V-Coat, High Precision Laser Grade Aspheric Lens

High Precision Laser Grade Aspheric Lenses

Stock **#39-567** **3 In Stock**

Other Coating Options

- 1 + **C$1,750**.00

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Volume Pricing	
Qty 1-5	**C$1,750.00** each
Qty 6-10	**C$1,575.00** each
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Product Downloads

General

Type:

Aspheric Lens

Note:

Strehl Ratio is >0.8 by design and tested

Physical & Mechanical Properties

Diameter (mm):

50.80 +0.00/-0.05

Centering (arcmin):
<1

Clear Aperture CA (mm):
46.80

Edge Thickness ET (mm):
2.69

Center Thickness CT (mm):
10.00

Bevel:
Protective as needed

Shape of Back Surface:
Plano

Optical Properties

Effective Focal Length EFL (mm):
101.60 @ 1064nm

Numerical Aperture NA:
0.25

Back Focal Length BFL (mm):
94.70

Substrate:
Fused Silica (Corning 7980)

Aspheric Design Wavelength (nm):
1064

Asphere Figure Error, RMS @ 632.8nm:
λ/40

Coating:
Laser V-Coat (1064nm)

Coating Specification:
R_{abs} <0.25% @ 1064nm

Surface Quality:
10-5

f/#:
2

Spot Size (µm):
See Technical Information Tab

Conjugate Distance:
Infinite

Damage Threshold, By Design:
15 J/cm^2 @ 1064nm, 20ns, 20Hz

Power (diopters):
9.84

Material Properties

Strehl Ratio:
>0.8, tested

Regulatory Compliance

Certificate of Conformance:
View

Custom

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

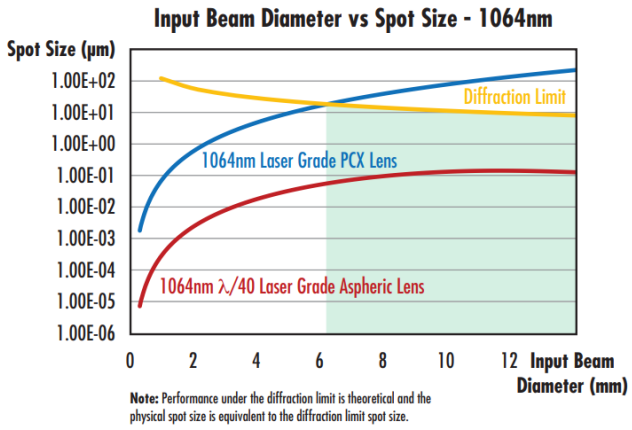
Learn more about our custom manufacturing capabilities or submit an inquiry here.

Product Details

- Substrate Shape and Coating Optimized for Nd:YAG Laser Wavelengths
- High Precision Aspheric Surface
- Strehl Ratio > 0.8

TECHSPEC® High Precision Laser Grade Aspheric Lenses are polished through precision magnetorheological finishing (MRF), providing them with an ultra-smooth aspheric surface with an aspheric surface tolerance of λ/40 RMS. The aberration free aspheric surfaces produced through this super-polishing process result in these aspheric lenses having diffraction-limited performance at their design wavelengths. A high-performance Laser Line V-Coat minimizes reflection when these aspheric lenses are used at their Nd:YAG wavelengths. TECHSPEC High Precision Laser Grade Aspheric Lenses feature substrates designed and shaped at their laser wavelength to optimize the entire lens design, not just the anti-reflection coating, for the laser wavelength. Standard imperial sizes of these laser grade aspheres with f/2 designs, made from fused silica, are available.

Technical Information



Note: Performance under the diffraction limit is theoretical and the physical spot size is equivalent to the diffraction limit spot size.

Compatible Mounts

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