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TECHSPEC®

50.8mm Dia x 101.6mm FL, 532nm V-Coat, High Precision Laser Grade Aspheric Lens

High Precision Laser Grade Aspheric Lenses

Stock **#39-565** **20+ In Stock**

Other Coating Options

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

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Volume Pricing	
Qty 1-5	**S$1,750.00** each
Qty 6-10	**S$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):
4.10

Center Thickness CT (mm):
11.20

Bevel:
Protective as needed

Shape of Back Surface:
Plano

Optical Properties

Effective Focal Length EFL (mm):
101.60 @ 532nm

Numerical Aperture NA:
0.25

Back Focal Length BFL (mm):
93.95

Substrate:
Fused Silica (Corning 7980)

Aspheric Design Wavelength (nm):
532

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

Coating:
Laser V-Coat (532nm)

Coating Specification:
R_{abs} <0.25% @ 532nm

Surface Quality:
10-5

f/#:
2

Abbe Number (v_d):
67.8

Design Wavelength DWL (nm):
532

Index of Refraction (n_d):
1.458

Spot Size (µm):
See Technical Information Tab

Conjugate Distance:
Infinite

Focal Length Specification Wavelength (nm):
532

Damage Threshold, By Design:
10 J/cm^2 @ 532nm, 20ns, 20Hz

Power (diopters):
9.84

Material Properties

Coefficient of Thermal Expansion CTE (10^{-6}/°C):
0.52

Strehl Ratio:
>0.8, tested

Regulatory Compliance

Certificate of Conformance:
View

Need different specs or modifications?

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

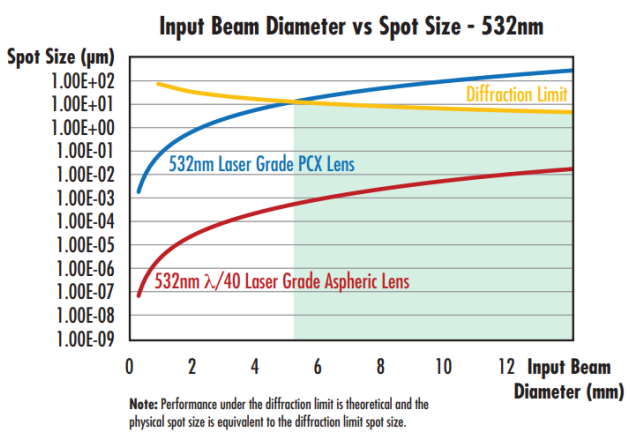
Learn more about our custom manufacturing capabilities or submit an inquiry here.

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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