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**TECHSPEC® 50mm Dia 0.42 NA, UV-VIS Coated, UV Fused Silica Aspheric Lens**



TECHSPEC UV Fused Silica Aspheric Lenses



Stock #84-342 **3 In Stock**

[Other Coating Options](#)

1  **S\$1,328<sup>00</sup>**

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Volume Pricing	
Qty 1-5	<b>S\$1,328.60</b> each
Qty 6-10	<b>S\$1,197.00</b> each
Qty 11-25	<b>S\$1,113.00</b> each
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Product Downloads

**General**

Aspheric Lens **Type:**

**Physical & Mechanical Properties**

**Diameter (mm):**

50.00 +0.0/-0.1

Centering (arcmin):  
≤5

Clear Aperture CA (mm):  
45

Edge Thickness ET (mm):  
4.42

Center Thickness CT (mm):  
17.00 ±0.1

Bevel:  
Protective as needed

Shape of Back Surface:  
Plano

## Optical Properties

Effective Focal Length EFL (mm):  
60.00 @ 587.6nm

Numerical Aperture NA:  
0.42

Back Focal Length BFL (mm):  
48.34

Substrate:   
[Fused Silica](#) (Corning 7980)

Aspheric Design Wavelength (nm):  
587.6

Asphere Figure Error, RMS @ 632.8nm:  
1.2λ

Coating:  
UV-VIS (250-700nm)

Coating Specification:  
R<sub>avg</sub> <2.5% @ 250 - 700nm

Surface Quality:  
60-40

f#:  
1.2

Abbe Number (v<sub>d</sub>):  
67.8

Index of Refraction (n<sub>d</sub>):  
1.458

Wavelength Range (nm):  
250 - 700

Conjugate Distance:  
Infinite

Focal Length Specification Wavelength (nm):  
587.60

Power (diopters):  
16.67

## Material Properties

Coefficient of Thermal Expansion CTE (10<sup>-6</sup>/°C):  
0.52

## Regulatory Compliance

RoHS 2015:  
[Compliant](#)

Certificate of Conformance:  
[View](#)

Reach 235:  
[Compliant](#)

## 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

- Low Coefficient of Thermal Expansion
- Precision and High Precision Options
- High Numerical Apertures to Maximize Throughput

TECHSPEC® UV Fused Silica Aspheric Lenses offer the benefits of an aspheric element combined with the manufacturing precision of state-of-the-art grinding and polishing equipment. These fused silica optics can be easily designed and integrated into complex optical systems with the available prescription data. Featuring low  $f\#$ 's, which allow for a larger aperture and thus more light gathering and focusing performance, these fused silica lenses are computer-optimized to eliminate spherical and minimize higher order aberrations. TECHSPEC® UV Fused Silica Aspheric Lenses offer a low coefficient of thermal expansion, making them ideal for applications in metrology, beam-focusing or collimating, and OEM integration. These lenses are available in a variety of coating options and are offered in sizes ranging from 10-50mm.

## Technical Information



UV FS Transmission Curve



## Compatible Mounts