

TECHSPEC® 12.7 x 12.7mm x -50mm FL, NIR I Laser Grade PCV Cylinder Lens



TECHSPEC Beam Shaping Fused Silica Cylinder Lenses

Stock **#36-122** **5 In Stock**

⊖ 1 ⊕ €150^{.00}

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Volume Pricing	
Qty 1-5	€150,00 each
Qty 6-25	€135,00 each
Qty 26-49	€128,00 each
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ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Cylinder Lens, Plano-Concave **Type:**

Physical & Mechanical Properties

Protective as needed **Bevel:**

Center Thickness CT (mm):

3.00

Center Thickness Tolerance (mm):
±0.1

Clear Aperture CA (mm):
11.43 x 11.43

Dimensional Tolerance (mm):
+0.0/-0.025

Dimensions (mm):
12.7 x 12.7

Edge Thickness ET (mm):
3.81

Axial Twist (arcmin):
<3

Optical Properties

Effective Focal Length EFL (mm):
-50.00

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

f#:
1.00

Numerical Aperture NA:
0.50

Coating:
NIR I (600-1050nm)

Wavelength Range (nm):
600 - 1050

Back Focal Length BFL (mm):
-52.06

Coating Specification:
R_{avg} ≤ 0.5% @ 600 - 1050nm

Radius R₁ (mm):
22.93

Surface Quality:
20-10

Power (P-V) @ 632.8nm:
1.5λ

Irregularity (P-V) @ 632.8nm:
λ/4

Plano Axis Wedge (arcmin):
<3

Power Axis Wedge (arcmin):
<4.5

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

- Offers Superior Performance from UV to IR
- Fused Silica Substrate
- Laser Optic Surface Quality

TECHSPEC® Laser Grade Broadband Cylinder Lenses feature precision specifications for the most demanding applications. These lenses are constructed of premium grade fused silica optical glass and are tailored for laser applications with a surface quality of 20-10. Our TECHSPEC Laser Grade Broadband Cylinder Lenses feature tight wedge tolerances, typically less than 3 arcmin in all dimensions. Integration of these lenses is facilitated by square form factors allowing convenient mounting options.

Technical Information

FUSED SILICA

Uncoated Fused Silica Typical Transmission



Typical transmission of an uncoated fused silica window across the UV - NIR spectra.

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Fused Silica with MgF₂ Coating Typical Transmission



Typical transmission of a fused silica window with MgF₂ (400-700nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 1.75\% @ 400 - 700\text{nm (N-BK7)}$$

Data outside this range is not guaranteed and is for reference only.

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Fused Silica with UV-AR Coating Typical Transmission



Typical transmission of a fused silica window with UV-AR (250-425nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{abs} \leq 1.0\% @ 250 - 425\text{nm}$$

$$R_{avg} \leq 0.75\% @ 250 - 425\text{nm}$$

$$R_{avg} \leq 0.5\% @ 370 - 420\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

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Fused Silica with UV-VIS Coating Typical Transmission



Typical transmission of a fused silica window with UV-VIS (250-700nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{abs} \leq 1.0\% @ 350 - 450\text{nm}$$

$$R_{avg} \leq 1.5\% @ 250 - 700\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

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**Fused Silica with VIS-EXT Coating
Typical Transmission**



Typical transmission of a fused silica window with VIS-EXT (350-700nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.5\% @ 350 - 700nm$$

Data outside this range is not guaranteed and is for reference only.

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**Fused Silica with VIS-NIR Coating
Typical Transmission**



Typical transmission of a fused silica window with VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{abs} \leq 0.25\% @ 880nm$$

$$R_{avg} \leq 1.25\% @ 400 - 870nm$$

$$R_{avg} \leq 1.25\% @ 890 - 1000nm$$

Data outside this range is not guaranteed and is for reference only.

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**Fused Silica with VIS 0° Coating
Typical Transmission**



Typical transmission of a fused silica window with VIS 0° (425-675nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.4\% @ 425 - 675nm$$

Data outside this range is not guaranteed and is for reference only.

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**Fused Silica with YAG-BBAR Coating
Typical Transmission**



Typical transmission of a fused silica window with YAG-BBAR (500-1100nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{abs} \leq 0.25\% @ 532nm$$

$$R_{abs} \leq 0.25\% @ 1064nm$$

$$R_{avg} \leq 1.0\% @ 500 - 1100nm$$

Data outside this range is not guaranteed and is for reference only.

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Fused Silica with NIR I Coating Typical Transmission



Typical transmission of a fused silica window with NIR I (600 - 1050nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.5\% @ 600 - 1050\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

Fused Silica with NIR II Coating Typical Transmission



Typical transmission of a fused silica window with NIR II (750 - 1550nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{abs} \leq 1.5\% @ 750 - 800\text{nm}$$

$$R_{abs} \leq 1.0\% @ 800 - 1550\text{nm}$$

$$R_{avg} \leq 0.7\% @ 750 - 1550\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

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